

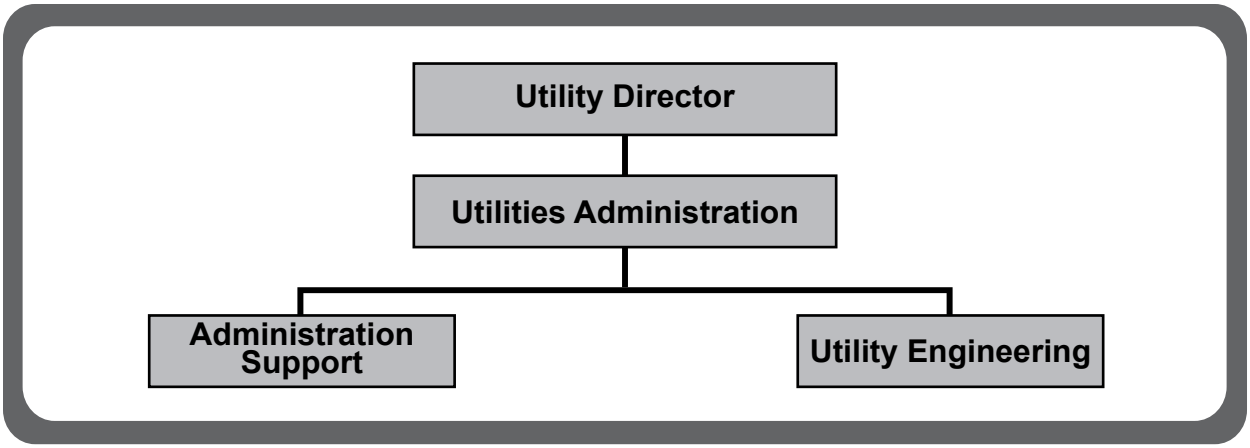
# Water / Wastewater Utility Fund Expenditures

Utilities Administration
Water Treatment Plant
Water Systems Support
Water Line Maintenance
Wastewater Treatment Plant
Wastewater Systems Support
Wastewater Line Maintenance
Environmental Services
Utility Billings & Collections
Utility Debt Service & Transfers

# *Utilities Administration Department*

Utilities Administration oversees the city's raw water supply, Utility Engineering, Utility GIS and Mapping, Capital Improvements Program, Water Treatment Plant, Environmental Services (Industrial Waste Pretreatment, Recycling Services, and Analytical Laboratory), Water Line Maintenance, Water Systems Support, Wastewater Line Maintenance, Wastewater Systems Support, and Wastewater Treatment Plant.

*Mission: To ensure adequate future water supply for the city, ensure installation of water and wastewater infrastructure to meet existing and future growth needs, economical operation of the utilities system and ensure compliance with state and federal regulations.*




## Departmental Program Summary:

The Utilities Administration Department consists of the Administration Support and Utility Engineering programs, and is responsible for providing support and oversight to seven other divisions.

## Programs:

**Administration Support:** Utility Administration oversees and supports Utility Engineering and seven Divisions that include: Water Line Maintenance, Water Systems Support, Wastewater Line Maintenance, Wastewater Systems Support, Environmental Services, Water Treatment Plant and Wastewater Treatment Plant.

**Utility Engineering:** Utility Engineering is responsible for the management, inspection and coordination of all Utility Capital Improvement Projects (C.I.P.) including negotiating Professional Services Contracts, providing general engineering support for Public Works and other departments in the City, and managing and coordinating the Utility GIS, Mapping and Utility Systems Computer Modeling Programs.

## FY 2006-07 Highlights:

During the FY 2006-07 budget year, we continued to implement several programs that will ensure adequate future water supply, distribution, fire protection capability, wastewater collection and treatment for the City. We initiated a three-year GIS/GPS project to improve our utility systems mapping and location of manholes, valves and fire hydrants. We negotiated an interlocal agreement with the Cities of Cedar Park and Georgetown to establish an interim and emergency water supply for either city. In addition to the above activities we also:

- Initiated contract agreements, planning, design, easement acquisition, land acquisition, and construction of the Brushy Creek Regional Water System to supply Lake Travis Water to Cedar Park, Round Rock and Leander by the summer of 2010. We will complete the last segment of the treated water by 2014.

**Water Capital Improvement Projects**

- Initiated the Design, Easement Acquisitions and Construction of the 2005 Raw Water Delivery System Improvements to deliver 52 million gallons per day (MGD) of Lake Georgetown and Lake Stillhouse Hollow Water to our 48 MGD Water Treatment Plant (WTP) recently re-rated to a 52 MGD WTP.
- Initiated the Construction phase of the East Water Transmission Line, Phase 3B-1 which consists of 16,900 linear feet of 36-inch and 30-inch water lines that extend from FM 1460 along CR 112 to CR 117; then along CR 117 to CR 122; and then along CR 122 to Kiphen Road.
- Initiated the Construction of the East Water Transmission Line, Phase 3B-2, 5 which consists of 400 linear feet of 30-inch water line from Kiphen Road along CR 112 to SH 79.

## FY 2006-07 Highlights: (cont.)

- Completed the installation of a generator to run the High Service Pumps and to process about 12 MGD of treated water at the Water Treatment Plant.
- Rehabilitated the Vista Heights Standpipe, Bowman Road Tank and the Westinghouse Road Water Tank and Wells. The wells will have new pumps and controls installed. The tank will have its foundation problem corrected, be painted and rehabilitated.

**Wastewater Capital Improvement Projects**

- Implemented the Construction of the McNutt Creek Wastewater Interceptor – Line A, which consists of 8,500 linear feet of 48-inch wastewater line, to serve the northeast area of Round Rock's ETJ.
- Completed the rehabilitation of wastewater line and manholes in Basins BC-07, BC-22Z, OC-30Z, CC-32Z, LC-12, CC-34Z, LC-15Z, LC-16Z, EW-01Z, OC-28Z and CC-37Z, under the TCEQ mandated Edwards Aquifer Protection Program.
- Completed the I & I Flow Monitoring Study of our wastewater system to better predict the actual storm water inflow rates in our wastewater system.

## FY 2007-08 Overview and Significant Changes:

During FY 2007-08 we plan to:

- Continue with contract agreements, planning, design, easement acquisition, land acquisition, and construction of the Brushy Creek Regional Water System to supply Lake Travis Water to Cedar Park, Round Rock and Leander by the summer of 2010. We will complete the last segment of the treated water by 2014.

**Water Capital Improvements Projects**

- Revise the Water Master Plan and Water and Wastewater Impact Fees to ensure adequate water supply and wastewater infrastructure with an adequate budget into the foreseeable future. The plan will require revisions to reflect the development of the Lake Travis Water Supply from the northwest part of our system.
- Complete construction of the Kensington Park Water Line, 3,700 linear feet of 16-inch water line from the S 81 Elevated Tank through Kensington Park to Gattis School Road in order to utilize more ground water from our Lake Creek wells.
- Complete the construction of the Raw Water Delivery System Pumps and Line Improvements to enable the City to access all of the water available for the City in Lake Georgetown and Lake Stillhouse Hollow.
- Complete the construction of the RM 1431 24-inch Water Line which consists of 5,500 linear feet of line. This line will serve the Cedar Park/Round Rock interconnect and be the first leg in our distribution system to deliver water to Round Rock from the Brushy Creek Regional Water Supply System.
- Complete construction of the RM 1431 2 MG Elevated Water Tank.
- Complete the installation of a 7.5 MGD High Service Pump at the WTP.
- Continue with the 3-year project to improve the Geographic Information System (GIS) and Global Positioning System (GPS) Mapping as a service to the public. The system will help developers with more precise location of utilities, the Fire Department with fire hydrant flow date and fire hydrant position during emergencies and to assist Field Crews in maintenance of fire hydrants and manhole locations.

**Wastewater Capital Improvement Projects**

- Complete construction of the McNutt Creek Wastewater Interceptor – Line A, which consists of 8,500 linear feet of 48-inch wastewater line, to serve the northeast area of Round Rock's ETJ.
- Complete the rehabilitation of wastewater line and manholes in the Basins BC-20Z, LC-09Z, LC-17Z, EW-01Z, OC-28Z, CC-37Z, BC-22Z, LC-12Z and CC-32Z, under the TCEQ mandated Edwards Aquifer Protection Program.

## New Programs for FY 2007-08:

No new programs requested for FY 2007-08.

## FY 2008-09 Overview and Beyond:

In FY 2008-09, we expect to:

**Water Capital Improvement Projects**

- Continue with contract agreements, planning, design, easement acquisition, land acquisition, and construction of the Brushy Creek Regional Water System to supply Lake Travis Water to Cedar Park, Round Rock and Leander by the summer of 2010. We will complete the last segment of the treated water line by 2014.
- Complete construction of the Raw Water Delivery System Improvements to enable the City to access all of the water available to the City in Lake Georgetown and Lake Stillhouse Hollow.
- Continue with the 3-year project to improve the GIS and GPS as a service to the public. The system will help developers with more precise location of utilities, the Fire Department with fire hydrant flow date and fire hydrant position during emergencies and to assist Field Crews in maintenance of fire hydrants and manhole locations.

**Wastewater Capital Improvement Projects**

- Start design to rehabilitate or remove several Forest Creek area lift stations. Removal of these lift station will require a capital improvement project to install a gravity collection system to replace the lift stations.

**Reclaimed Water**

- Complete the design and construction of the Old Settlers Park reclaimed water line and pump station.

## Departmental Goals:

- Ensure efficient utility services by providing a highly reliable and efficient water distribution system and wastewater collection system that meets all Environmental Protection Agency (EPA), Texas Commission of Environmental Quality (TCEQ) and the Safe Drinking Water Act regulations. (City Goal 5.4)
- Ensure all utility CIP are adequately and efficiently coordinated, managed and inspected. (City Goal 2.1 and City Goal 5.4)
- Maintain 100% compliance with state and federal regulations. (City Goal 5.4)
- Ensure efficient utility services and adequate system expansions with future land use and City's financial capacity in mind. (City Goal 2.1 and City Goal 5.4)
- Ensure an adequate future water supply. (City Goal 5.4)

| **Objective:** Ensure that water availability is sufficient to cover water use | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Raw Water Under Contract in acre feet | 31,498 | 31,498 | 45,782 | 45,782 |
| Actual Raw Water Use in acre feet | 16,760 | 17,900 | 19,200 | 20,500 |

**Trend:** We are forecasting a 7% increase in raw water use between FYs.

- Develop and maintain a comprehensive, integrated in-house water distribution and wastewater collection system-mapping system, including GPS of fire hydrants, valves and manholes. (City Goal 2.5 and City Goal 5.4)

| **Objective:** Utilize our "Utility Systems Analyst" to help develop, implement and maintain an in-house wastewater collection system model to analyze and manage system operations and upgrades. | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| % of wastewater system modeled (10" lines and larger) | 95% | 98% | 99% | 99% |

| **Objective:** Integrate wastewater collection system computer model into our GIS and SCADA systems | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Miles of Wastewater line added to System | 19 | 21 | 24 | 27 |
| Miles of wastewater line connected directly to regional wastewater line | 20 | 20 | 20 | 20 |

**Trend:** Currently there are 481 miles of wastewater line (including 26 miles of regional wastewater lines) and 7,369 manholes in the system.

## Departmental Goals (cont):

- Maintain a comprehensive, integrated in-house water distribution system-modeling program, including system inventory, mapping and management system to ensure efficient and adequate system expansions. (City Goal 2.5 and City Goal 5.4)

| **Objective:** Develop, implement and maintain a valve location program for input into our in-house water distribution system model computer model for GIS Mapping and SCADA systems | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| % of water system modeled | 98% | 98% | 99% | 99% |
| Miles of water line added to distribution system | 10 | 20 | 35 | 38 |

**Trend:** Currently there are 376 miles of water lines in the City's system.

## Summary of Key Measurement Indicators:

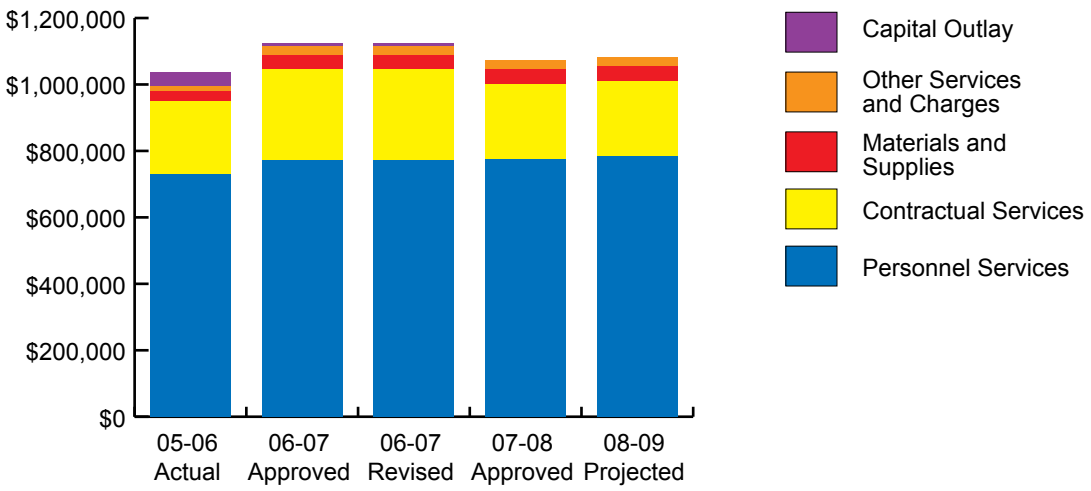
| **Measurement Indicators** | **Actual 2005-06** | **Estimated 2006-07** | **Projected 2007-08** |
|---|---|---|---|
| **Demand** | | | |
| Number of Water Connections | 29,208 | 30,960 | 30,617 |
| Raw Surface Water Pumped (gallons) | 5,811,014,000 | 5,985,343,000 | 6,123,795,000 |
| Raw Ground Water Pumped (gallons) | 1,916,250,000 | 1,916,250,000 | 1,913,000,000 |
| Round Rock Service Population | 88,500 | 90,100 | 93,700 |
| Miles of Water Line | 365 | 376 | 392 |
| Miles of Wastewater Lines | 458 | 481 | 487 |
| Number of Lift Stations | 10 | 11 | 11 |
| Number of Water Pumping Stations | 14 | 14 | 14 |
| **Input** | | | |
| Operating Expenditures | **$1,038,234** | **$1,123,479** | **$1,072,766** |
| Raw Water Cost per Acre foot | $45.42 | $52.23 | $115.50* |
| Number Authorized FTEs | **10.00** | **10.00** | **10.00** |
| **Output** | | | |
| Surface Water Treated (gallons) | 5,302,161,000 | 5,461,225,000 | 6,062,557,050 |
| Ground Water Treated (gallons) | 1,916,250,000 | 1,916,250,000 | 1,913,000,000 |
| Gallons Wastewater Treated | 3,637,240,000 | 3,928,219,200 | 4,317,220,000 |
| Dollars CIP Completed | $8,000,000 | $12,000,000 | $28,500,000 |
| **Efficiency** | | | |
| Water Use / water under contract | 52.00% | 54.00% | 43.00%* |
| Expenditures as a % of Utility Fund | **4.09%** | **3.92%** | **3.28%** |
| Auth. Personnel as % of Utility Funded FTEs | **7.87%** | **7.84%** | **7.84%** |
| Funded FTEs | 8.00 | 8.00 | 8.00 |

*First fiscal year including Lake Travis contracted water.

| | Positions | | | Full Time Equivalents | | |
|---|---|---|---|---|---|---|
| **Authorized Personnel** | **2005- 2006 Actual** | **2006-07 Revised** | **2007-08 Approved** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** |
| Utility Director | 1 | 1 | 1 | 1 | 1 | 1 |
| Chief Utility Engineer | 1 | 1 | 1 | 1 | 1 | 1 |
| Utility CIP Specialist | 1 | 1 | 1 | 1 | 1 | 1 |
| Utility Systems Analyst | 1 | 1 | 1 | 1 | 1 | 1 |
| W/WW Line Maint. Inspector | 2 | 2 | 2 | 2 | 2 | 2 |
| GIS Analyst | 1 | 1 | 1 | 1 | 1 | 1 |
| GIS Technician | 1 | 1 | 1 | 1 | 1 | 1 |
| Senior Utility Engineer | 1 | 1 | 1 | 1 | 1 | 1 |
| Administrative Tech III | 1 | 1 | 1 | 1 | 1 | 1 |
| Total | 10 | 10 | 10 | 10 | 10 | 10 |

## Utilities Administration

*Expenditures by Category*



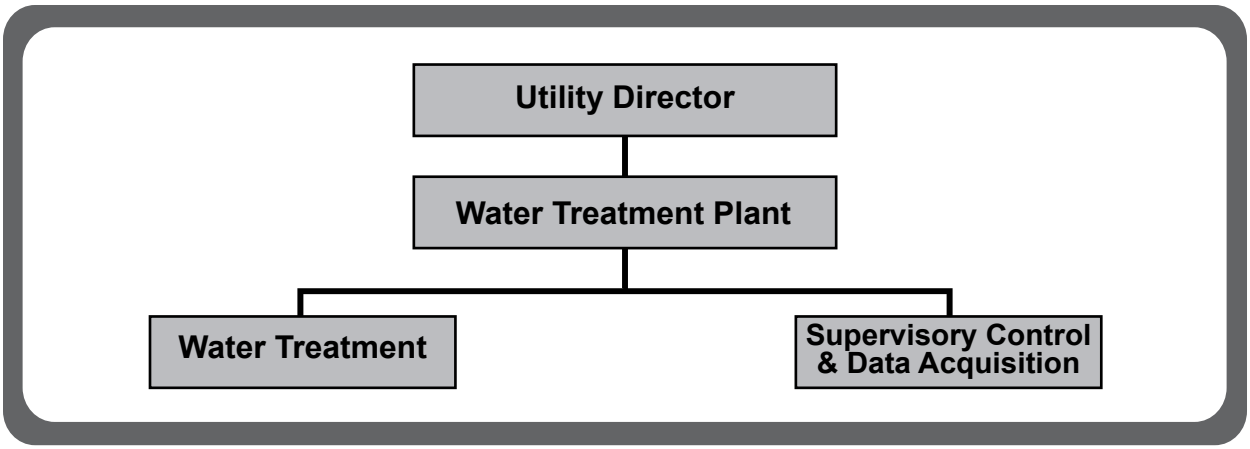

## Summary of Expenditures:

| | 2005-06 Actual | 2006-07 Approved Budget | 2006-07 Revised Budget | 2007-08 Approved Budget | 2008-09 Projected Budget |
|---|---|---|---|---|---|
| Personnel Services | $728,771 | $770,913 | $770,913 | **$775,034** | $784,065 |
| Contractual Services | 221,633 | 274,299 | 274,299 | **225,765** | 225,765 |
| Materials and Supplies | 28,323 | 42,517 | 42,517 | **44,317** | 44,817 |
| Other Services and Charges | 17,686 | 28,650 | 28,650 | **27,650** | 27,650 |
| Capital Outlay | 41,821 | 7,100 | 7,100 | **0** | 0 |
| Total Expenditures: | $1,038,234 | $1,123,479 | $1,123,479 | **$1,072,766** | $1,082,297 |
| Expenditures per Capita: | $11.73 | $12.47 | $12.47 | **$11.45** | $11.10 |

# *Water Treatment Plant Department*

The primary activity of the Water Treatment Plant Department is the treatment of surface and ground water sources to a level that meets or exceeds state and federal regulations. This is accomplished by utilizing sophisticated equipment, innovative treatment technologies and state certified waterworks operators. The Water Treatment Plant is also responsible for the operations of the computer system used to monitor and control the treatment and distribution of water and collection of wastewater.

*Mission: Provide the highest quality, best tasting drinking water of sufficient quantity, volume and pressure, for domestic use and fire protection.*




## Departmental Program Summary:

The Water Treatment Plant consists of a single program divided into two components described in detail below:

## Programs:

The Water Treatment Plant consists of the following components:

**Water Treatment:** The water treatment program is responsible for treating and distributing surface and ground water. The surface water treatment plant is designed to treat 48 million gallons per day (MGD). The ground water treatment plant is capable of treating up to 9 million gallons per day.

**Supervisory Control and Data Acquisition (SCADA):** The SCADA component is responsible for maintaining and operating the computerized automation system, which controls plant operation, water distribution, and wastewater lift stations. This system consists of field instruments and measuring devices, remote terminal units, programmable logic controllers, radios and human/machine interface devices. The SCADA system is essentially a collection of programmed controlling devices that allow the operator to control and monitor equipment. This automation allows operations to be more efficient.

## FY 2006-07 Highlights:

In FY 2006-07, the Water Treatment Plant Department focused on improving facility safety and security as well as optimizing treatment systems. The department implemented several programs intended to achieve those goals. Listed below, are the department highlights.

- The department worked with the City of Cedar Park, the City of Leander and Camp Dresser and McKee to plan and design the regional water treatment facility.
- The Texas Commission on Environmental Quality accepted the city's proposal to rerate the surface water treatment facilities to 52 million gallons per day.
- The disinfection protocol at the city's Surface Water Treatment Plant was improved, changing from gas ammonia to liquid ammonia. Resulting in a more efficient and stable treatment process that now poses no threat to the public in the event of release.

## FY 2007-08

## Overview and Significant Changes:

Improving efficiencies, optimizing treatment and meeting new regulatory requirements continue to dominate the Water Treatment Department activities. In particular, the department is focusing on the following:

- Implementing the monitoring requirements for the Stage Two Disinfectant Byproduct Rule and the Long Term Two Surface Water Treatment Rule.
- Replacing a portion of the Supervisory Control and Data Acquisition (SCADA) computers. These computers are responsible for monitoring and operating the water system through automated controls.
- Monitoring the source water quality at Lake Georgetown more thoroughly in order to improve and optimize treatment.

## New Programs for FY 2007-08:

The Water Treatment Department has recognized that uninterrupted water service is important to the continued growth of the City. The department has identifying the purchase of a spare valve actuator as a means to provide equipment redundancy and ensure continued water service.

**Valve Actuator:** Purchase a spare valve actuator to be used as a spare when one of the more than sixty existing valve actuators in operation breakdown. This spare actuator will allow the valve to remain in service while the repair is being made.

## FY 2008-09 Overview and Beyond:

In the upcoming years, the Water Treatment Department will concentrate on activities geared toward maintaining and optimizing existing facilities as well as planning to meet the future needs of the city and its customers. The Water Treatment Department will focus on the following activities in FY 2008-09 to support future growth:

- Implement a water conservation program that includes conservation rates and rebates.
- Continue to monitor the progress of new regulations that may impact our treatment techniques. New rules regarding disinfectant byproducts, ground water treatment and source water quality will be at the forefront of our considerations.
- Continue to focus on preventive maintenance and routine equipment change-outs.

## Departmental Goals:

- Monitor peak day consumption to ensure that planned treatment capacity expansions will meet future needs. (City Goal 5.1)
- Improve public education and awareness regarding the quality of the drinking water and water conservation issues. (City Goal 6.1)
- Continue to develop and empower employees. (City Goal 5.2 and 6.0)
- Provide surface and groundwater treatment in compliance with all rules and regulations. (City Goal 5.4)

| **Objective:** Improve operational and production efficiency | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Treated water quality (NTU) | .076 | .120 | .100 | .120 |
| Number of treatment violations | 0 | 0 | 0 | 0 |
| Organic removal rate | 96.3% | 95% | 96% | 95% |
| Chemical feed rate (ml/min) | 400 | 400 | 450 | 430 |
| Electrical costs ($/1,000 gallons) | 0.0241 | .0205 | 0.0228 | .02900 |

**Trend:** The maximum limit for treated water quality is 0.3 NTU (Nephlometric Turbidity Units).The increase in the treated water quality for FY 2005-06 is related to changes in the raw water quality.

**Trend:** The decrease in the electrical costs per thousand gallons treated is possibly a result of optimized power consumption within the treatment plant accomplished through automation.

- Improve system automation and data management through innovation and technology. (City Goal 5.5)

| **Objective:** Improve system efficiency | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Treated water costs (operating costs per thousand gallons) | $.5833 | $.5810 | $.8710 | $.8380 |
| Number of mechanical failures | 4 | 5 | 5 | 5 |
| System downtime (hours) | 96 | 168 | 12 | 48 |

**Trend:** The costs for treated water are expected to increase. This is related to the rise in raw water costs and a severe increase in the cost of treatment chemicals.

**Trend:** During July of 2005, the water treatment plant lost a major treatment component. That portion of the plant was out of service for approximately ninety-six hours while parts were secured and the repair was made. A similar failure occurred in 2006, resulting in 168 hours of downtime.

## Summary of Key Measurement Indicators

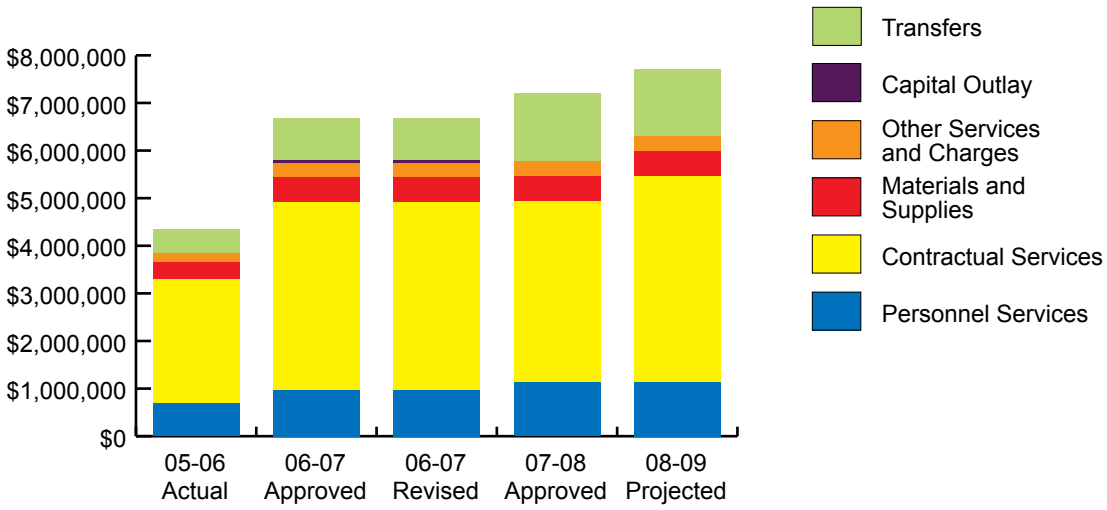
| Measurement Indicators | Actual 2005-06 | Estimated 2006-07 | Projected 2007-08 |
|---|---|---|---|
| **Demand** | | | |
| Number of Water Connections | 29,208 | 30,960 | 30,617 |
| Raw Surface Water Pumped (gallons) | 5,811,014,000 | 5,985,343,000 | 6,123,795,000 |
| Ground Water Pumped (gallons) | 1,916,250,000 | 1,916,250,000 | 1,913,000,000 |
| Round Rock Service Population | 88,500 | 90,100 | 93,700 |
| Raw Water Quality (TU) | 2.42 | 3.20 | 3.20 |
| **Input** | | | |
| Number Authorized FTEs | **17.50** | **17.50** | **17.50** |
| Operating Expenditures | **$4,354,224** | **$6,686,796** | **$7,199,455** |
| Raw Water Costs | $1,850,947 | $3,098,122 | $3,116,644 |
| Plant Electrical Costs | $128,175 | $136,350 | $175,000 |
| Chemical Costs | $218,019 | $400,000 | $400,000 |
| Maintenance Costs | $32,351 | $58,000 | $58,000 |
| **Output** | | | |
| Surface Water Treated (gallons)* | 5,302,161,000 | 5,461,225,000 | 6,062,557,050 |
| Ground Water Treated (gallons) | 1,916,250,000 | 1,916,250,000 | 1,913,000,000 |
| Sludge Produced (loads) | 96 | 112 | 118 |
| **Efficiency** | | | |
| Treatment Cost per 1,000 Gallons: | | | |
| Chemical Cost per 1,000 ($) | 0.037518237 | 0.066829921 | 0.065318973 |
| Electrical Cost per 1,000 ($) | 0.022057252 | 0.022780649 | 0.028577051 |
| Production Efficiency: | | | |
| Treated H2O/Pumped H2O | 93.41% | 93.37% | 99.24% |
| Authorized Personnel as % of Utility Fund | **13.78%** | **13.67%** | **13.67%** |
| Expenditures as a % of Utility Fund | **14.97%** | **23.35%** | **22.00%** |
| **Effectiveness** | | | |
| Number of TCEQ Violations | 0 | 0 | 0 |

*Surface water meters inaccurately measured due to low water usage and low flow conditions.

| | Positions | | | Full Time Equivalents | | |
|---|---|---|---|---|---|---|
| **Authorized Personnel** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** |
| Senior Utility Services Manager | 1 | 1 | 1 | 1 | 1 | 1 |
| Water Plant Supervisor | 1 | 1 | 1 | 1 | 1 | 1 |
| SCADA Technician | 1 | 1 | 1 | 1 | 1 | 1 |
| Water Plant Operator II | 4 | 4 | 4 | 4 | 4 | 4 |
| Water Plant Operator I | 5 | 5 | 5 | 5 | 5 | 5 |
| Water Plant Operator Trainee | 1 | 1 | 1 | 1 | 1 | 1 |
| Utility Systems Integrator | 1 | 1 | 1 | 1 | 1 | 1 |
| Facility Controls Electrician | 1 | 1 | 1 | 1 | 1 | 1 |
| Water Plant Maintenance Technician | 1 | 1 | 1 | 1 | 1 | 1 |
| Senior Water Plant Operator | 1 | 1 | 1 | 1 | 1 | 1 |
| VOE/Intern | 1 | 1 | 1 | 0.5 | 0.5 | 0.5 |
| Total | 18 | 18 | 18 | 17.50 | 17.50 | 17.50 |

## Water Treatment Plant Department

*Expenditures by Category*



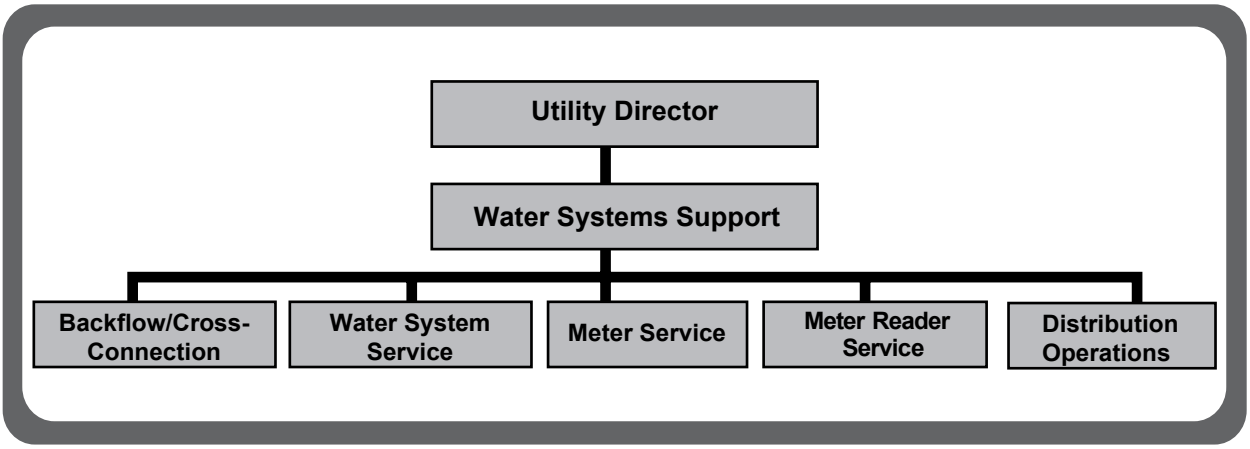

### Summary of Expenditures:

| | 2005-06 Actual | 2006-07 Approved Budget | 2006-07 Revised Budget | 2007-08 Approved Budget | 2008-09 Projected Budget |
|---|---|---|---|---|---|
| Personnel Services | $693,154 | $967,995 | $967,994 | **$1,124,894** | $1,140,525 |
| Contractual Services | 2,610,579 | 3,953,581 | 3,953,581 | **3,810,688** | 4,307,315 |
| Materials and Supplies | 356,899 | 521,020 | 515,413 | **523,453** | 525,953 |
| Other Services and Charges | 174,542 | 297,000 | 297,000 | **310,220** | 315,620 |
| Capital Outlay | 19,050 | 57,200 | 62,807 | **17,500** | 12,500 |
| Transfers | 500,000 | 890,000 | 890,000 | **1,412,700** | 1,412,700 |
| Total Expenditures: | $4,354,224 | $6,686,796 | $6,686,795 | **$7,199,455** | $7,714,613 |
| Expenditures per Capita: | $49.20 | $74.22 | $74.22 | **$76.84** | $79.12 |

# *Water Systems Support Department*

The Water Systems Support Department is responsible for the operation, maintenance, and repair of the City's water distribution system. Responsibilities are discharged through the utilization of multiple maintenance crews. Reporting lines of authority and accountability are shown below.

*Mission: Provide customers with safe, adequate, reliable, and high quality water services.*




## Departmental Program Summary:

The Water Systems Support Department consists of a single program with five components described below:

## Programs:

Water Systems Support consists of a) Backflow/Cross-Connection, b) Water System Service, c) Meter Service d) Meter Reader Service, and e) Distribution Operations. These components are under the direction of the Utility Support Superintendent, whose position is in Wastewater Systems Support.

**Backflow/Cross-Connection:** Personnel perform onsite inspections and update information on residential/commercial customers for required cross-connection device certification to keep the water safe for the public. This ensures safe and potable drinking water to the customers and maintains compliance with State Regulations and the cross-connection policies in the city ordinance.

**Water System Service:** Assures system reliability and safety through its Water System Equipment Maintenance program by performing routine inspections of fifty-three water distribution control sites (i.e. wells, storage tanks, booster pump stations, pressure reducing valves, etc.). Maintenance and repairs are performed on motors, pumps, electrical controls (i.e. solenoid valves, control panels, starters, etc.), and pressure control valves. In order to maximize the system's reliability, Water Systems Support maintains an emergency response team that is on call twenty-four hours, three hundred sixty-five days per year.

**Meter Service:** Ensures water use accountability by testing, repairing and replacing commercial/residential meters. This process maximizes meter performance and accuracy; oversees all the new commercial meter installations; installation of all new residential meters and maintains all wholesale Fire Hydrant meter accounts.

**Meter Reader Service:** Reading approximately 30,000-commercial/residential water meters monthly accurately and efficiently. Meters are reread for inaccurate field readings and high/low consumption flagged by the Utility Billing Department.

**Distribution Operations:** Monitors or operates the water distribution system to ensure storage tank levels are adequate for disinfection and fire protection. Distribution pumps are operated to provide adequate water supply and pressure. The lift station and pumping stations are operated and monitored to ensure equipment is operating correctly to prevent failures that would cause a sewage spill.

## FY 2006-07 Highlights:

This year brought several changes in water operations and distribution; this illustrates the growth in our city and surrounding communities. The following are some of the significant changes:

- The Westinghouse Wells and Ground Storage Tank Rehabilitation include upsizing the well pumps for more ground water and repainting the water storage tank.
- A backup Electric Power Generator has been installed at the Water Treatment Plant to supply electricity for pumping water and treatment/ distribution system controls.
- Start construction on Lake Georgetown Raw Water Deliver System Upgrades for more pumping capacity and delivery.
- Water System Audit is to evaluate and make recommendations on the efficiency and accountability of the city's water distribution system.

## FY 2007-08 Overview and Significant Changes:

The improvements and changes will be going strong in the next year to ensure that the water supply and distribution systems meet the public health and safety needs. The FY 2007-08 improvements include:

- Start of the Lake Travis Water Supply Agreement with Cedar Park's 16 inch line and metering point, one 7.5 High Service Pump and a 2 MGD Elevated Storage tank at the 1431 Site.
- Completion of East Water Transmission Line Phase 3B-1 from FM 1460 along CR 112, CR 117 and CR 122 to Kiphen Rd. Completion of East Water Transmission Line Phase 3B-2 from Kiphen Road along Cr122 to S.H. 79.
- Completion of the Lake Georgetown Raw Water Delivery System Improvements.

## New Programs for FY 2007-08:

**Meter Service Technician (1 FTE):** Meter Service Department has taken on the City and State Cross-connection rules and regulations responsibilities in their Career Ladder requirements that will require more licensing, time for inspections and filing of reports. These additional requirements have had an impact on the city's meter change-out and meter repair/test programs. This has been tracked and verified in the Key Measurement Indicators. Additional staffing is needed to bring the program back into compliance.

## FY 2008-09 Overview and Beyond:

The city's growth will put a demand on the existing water distribution system and water supply, so there is a constant need for improvements on the distribution system and acquiring new sources of water. The following will ensure that the growing demands will be met:

- Completion of the 16" waterline and metering point from Cedar Park.
- Completion of the 2 MG Elevated Water Storage Tank at the 1431 Site.
- Pilot Program to evaluate an Automated Meter Reading System.

## Departmental Goals:

- Provide and retrieve accurate data from the distribution system to maintain a comprehensive and integrated in-house water system distribution computer model. (City Goal 5.5)
- Increase staff to keep up with the distribution system growth, and establish a water distribution Supervisory Control and Data Acquisition (SCADA) program to make this department as efficient and productive as possible. (City Goal 5.1)
- Maintain a reliable and efficient water distribution system, while meeting all Environmental Protection Agency (EPA), Texas Commission on Environmental Quality (TCEQ) and Safe Drinking Water Act regulations. (City Goal 5.4)
- Ensure citizens receive quality service and safe water in a timely manner by maintaining a highly competent staff through comprehensive continuing education, training, and certification programs. (City Goal 5.4)

| **Objective:** Maintain an adequate and qualified work force and equipment to meet quality service delivery needs | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Open positions/retention rate/new hires | 100% | 100% | 100% | 100% |
| Distribution system growth % | 4.4% | 5.3% | 6.0% | 5.0% |
| Number of work orders | 12,292 | 13,479 | 14,000 | 14,500 |
| Average response time/average time to complete (Measure in hours) | 0.5 | 0.5 | 0.5 | 0.5 |

- Ensure the efficient distribution, accountability and reliability of our water resources. (City Goal 5.5)

| **Objective:** Active participation to create long-range water service strategies with the Lower Colorado-Brazos Alliance and other area municipalities in order to provide customers with efficient and reliable service | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| % of water accounted for | 90.9% | 90.0% | 95.0% | 94.0% |
| % of city's total electric bill (Utility usage) | 53.4% | 53.6% | 53.5% | 53.5% |

**Trend:** Decline due mostly to growth in total city utilities outside of department.

- Maintain a highly competent and reliable staff through comprehensive continuing education, training, and certification program. (City Goal 5.2)

| **Objective:** Maintain an adequate and qualified work force to meet quality service delivery needs | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Total Number of Utility Support staff | 18 | 19 | 20 | 21 |
| % of staff holding required licenses | 94.5% | 94.5% | 100% | 100% |
| % of staff holding multiple licenses | 44.5% | 60.0% | 50% | 65% |

**Trend:** Key Goal and related measures were new in FY 2003-04

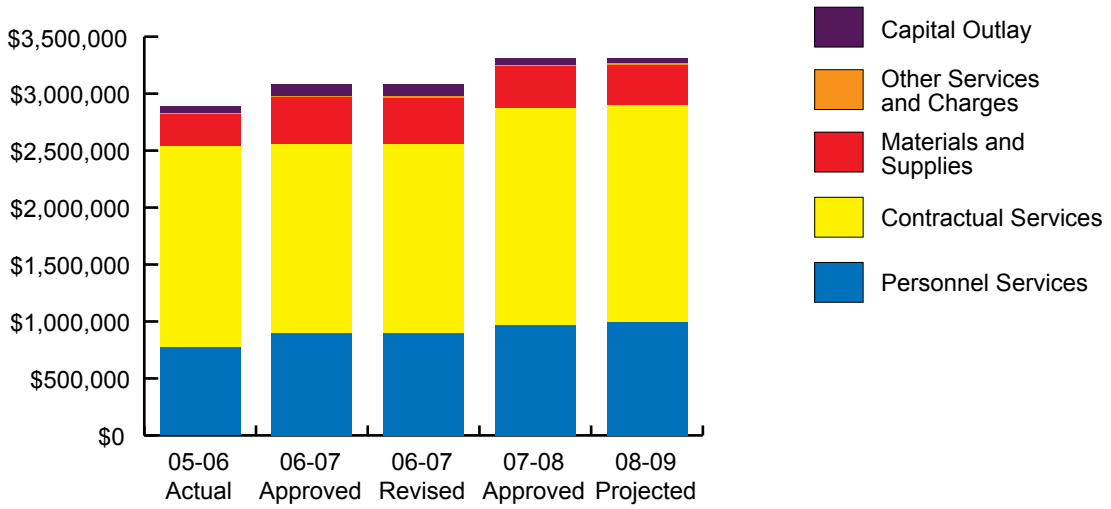
## Summary of Key Measurement Indicators

| Measurement Indicators | Actual 2005-06 | Estimated 2006-07 | Projected 2007-08 |
|---|---|---|---|
| **Demand** | | | |
| Pumping Sites | 14 | 14 | 14 |
| Pumps | 50 | 50 | 50 |
| Pressure Reducing Control valves | 48 | 53 | 53 |
| Ground Storage Tanks (includes Clearwells) | 8 | 8 | 8 |
| Stand Pipes | 3 | 3 | 3 |
| Elevated Tanks | 7 | 7 | 7 |
| Active Meters | 28,200 | 29,383 | 30,617 |
| Buildings Maintained | 13 | 13 | 13 |
| Telemetry Sites | 22 | 22 | 22 |
| **Input** | | | |
| Operating Expenditures | **$2,889,238** | **$3,086,879** | **$3,307,489** |
| Authorized FTEs | **19.00** | **20.00** | **21.00** |
| Meter Read % increase | 8.20% | 9.70% | 9.00% |
| Equipment Maintenance % increase | 8.80% | 4.00% | 5.00% |
| **Output** | | | |
| Surface Water-Pumped (gallons) | 5,811,014,000 | 5,985,343,000 | 6,123,795,000 |
| Ground Water-Pumped (gallons) | 1,916,250,000 | 1,916,250,000 | 1,913,000,000 |
| Meters Installed | 1,405 | 1,400 | 1,400 |
| Meters Rebuilt | 39 | 55 | 50 |
| Meter Change-Outs | 1,798 | 2,500 | 2,000 |
| Yearly total of meter reads | 330,679 | 362,750 | 395,400 |
| Emergency Call-Outs | 69 | 125 | 100 |
| **Efficiency** | | | |
| % meter rereads (not misreads) | 1.80% | 1.50% | 1.50% |
| Authorized Personnel as % of Utility Fund | **14.96%** | **15.63%** | **16.41%** |
| Expenditures as a % of Utility Fund | **9.93%** | **10.78%** | **10.11%** |
| **Effectiveness** | | | |
| % Emergency Response Within 1 Hour | 100% | 100% | 100% |
| WSS Water Unit Maintenance & Pumping Cost (per 1,000 gallons) | $0.37 | $0.39 | $0.41 |

| | Positions | | | Full Time Equivalents | | |
|---|---|---|---|---|---|---|
| **Authorized Personnel** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** |
| Meter Service Supervisor | 1 | 1 | 1 | 1 | 1 | 1 |
| Meter Service Technician I-III | 4 | 4 | 5 | 4 | 4 | 5 |
| W/WW System Mechanic I-IV | 6 | 6 | 6 | 6 | 6 | 6 |
| Senior System Mechanic | 0 | 0 | 0 | 0 | 0 | 0 |
| Meter Reader | 4 | 5 | 5 | 4 | 5 | 5 |
| Sr Meter Maintenance Technician | 0 | 0 | 0 | 0 | 0 | 0 |
| Meter Reader Supervisor | 1 | 1 | 1 | 1 | 1 | 1 |
| Senior Water Service Rep | 0 | 0 | 0 | 0 | 0 | 0 |
| System Mechanic | 0 | 0 | 0 | 0 | 0 | 0 |
| Meter Maintenance Technician | 0 | 0 | 0 | 0 | 0 | 0 |
| Backflow Prevention Technician | 0 | 0 | 0 | 0 | 0 | 0 |
| Utility Support Electrician I | 0 | 0 | 0 | 0 | 0 | 0 |
| Administrative Technician II | 1 | 1 | 1 | 1 | 1 | 1 |
| Water Distribution Operator I-III | 2 | 2 | 2 | 2 | 2 | 2 |
| Total | 19 | 20 | 21 | 19 | 20 | 21 |

## Water Systems Support

*Expenditures by Category*



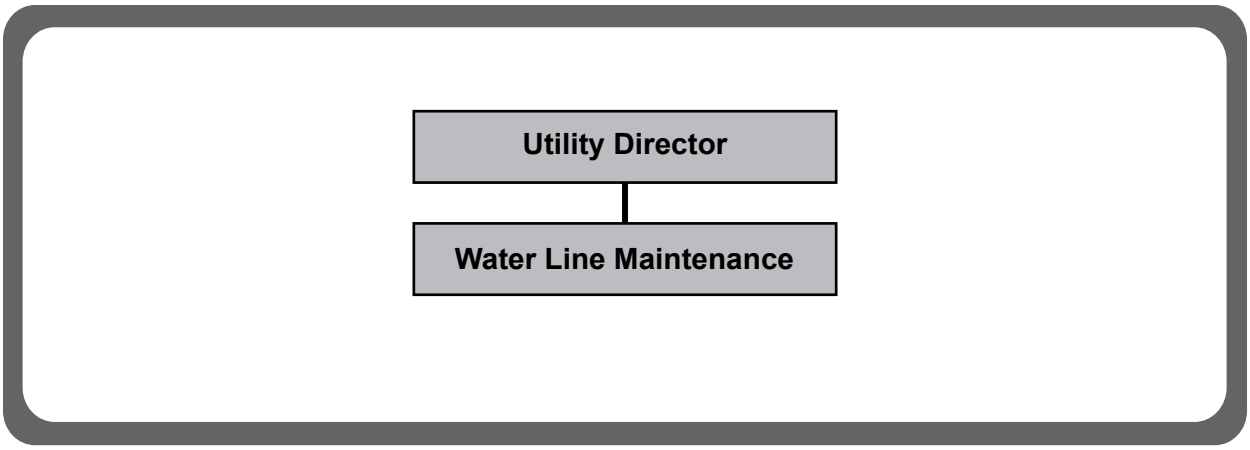

### Summary of Expenditures:

| | 2005-06 Actual | 2006-07 Approved Budget | 2006-07 Revised Budget | 2007-08 Approved Budget | 2008-09 Projected Budget |
|---|---|---|---|---|---|
| Personnel Services | $772,117 | $896,569 | $896,569 | **$966,500** | $998,882 |
| Contractual Services | 1,771,320 | 1,658,038 | 1,658,038 | **1,903,161** | 1,897,214 |
| Materials and Supplies | 273,967 | 412,475 | 409,975 | **370,728** | 359,584 |
| Other Services and Charges | 9,728 | 8,797 | 11,297 | **11,700** | 11,700 |
| Capital Outlay | 62,106 | 111,000 | 111,000 | **55,400** | 42,100 |
| Total Expenditures: | $2,889,238 | $3,086,879 | $3,086,879 | **$3,307,489** | $3,309,480 |
| Expenditures per Capita: | $32.65 | $34.26 | $34.26 | **$35.30** | $33.94 |

# *Water Line Maintenance Department*

The Water Line Maintenance Department (WLM) maintains approximately 487 miles of water lines, 5,797 valves and 3,679 fire hydrants in the city's water distribution system. Water Line Maintenance uses multiple three-man maintenance crews and a three-man night crew under the direction of a Water Line Maintenance Supervisor, who reports to the Utility Maintenance Manager, who reports to the Utility Director.

*Mission: Provide all our customers with safe, adequate, reliable, and high quality water services.*




## Departmental Program Summary:

The Water Line Maintenance Department consists of a single program described below:

## Program:

**Water Line Maintenance:** This program operates on twenty-four hours a day, three hundred sixty-five days per year. Water Line Maintenance Crews repair line breaks and correct service problems, including flushing dead-end mains in accordance with Texas Commission on Environmental Quality (TCEQ). Crews also perform preventative maintenance on existing water utility locations in accordance with State law, Texas Line Locate Bill, and "One Call." Water Line Maintenance has also switched one crew to an evening shift and after-hour calls which reduces the amount of overtime needed to maintain the service levels.

## FY 2006-07 Highlights:

Last winter, WLM had an unusual increase in main breaks due with the drier than usual weather which caused the water lines to move and break. We were also successful in completing the first year of our three year GPS program. Other significant achievements were:

- The realignment of a 16" water line at Dell Way and Mays. Seventy five feet of C900 pipe was laid and a 16" valve was placed in the water line.
- We were able to provide two tough books to two of the WLM crews enabling them to generate their own work orders from Cartegraph.
- October 2006 through May of 2007 we generated 1,909 work orders and processed 1,266 calls that came in through Public Works. All of which have had 100% response time.

## FY 2007-08
## Overview and Significant Changes:

- Continual working on year 2 of the GPS program, with City staff training.

- GPS Crews will accurately map water lines, valves and hydrants within the City.

## New Programs for FY 2007-08:

**Vactron Unit:** This equipment is designed to clean a valve can and then automatic operation of a valve. It is recommended by the manufactures of valves, that valves are operated once a year. Round Rock currently has 5797 valves and valve cans in the system.

## FY 2008-09 Overview and Beyond:

The future has a lot in store for the Water Line Maintenance Department, with our continued involvement with the three year GIS Mapping project. By this time, we should be half way through the project and should be yielding results that will enable us to have better resources such as plans and maps that are accurate. We will continue to see an increase in our population, which in turn will increase the number of connections and customers that we will serve. The future will also bring an increase in the number of miles of water lines, service lines, fire hydrants, and valves all of which will need some form of maintenance. To support this we will:

- Utlize the new Vactron unit (which will enable us to clean and operate the valves and valve cans in our system). We have 5,797 valves and valve cans in our system now.

- Continue to train our employees for the future with a proactive career ladder. This process will ensure that we will have well trained employees in the future.

- Continue updating of maps and plans for the GPS/ GIS Mapping project.

## Departmental Goals:

- Maintain a comprehensive, integrated in-house water distribution system-modeling program, including system inventory, mapping, and management to ensure efficient and adequate system. (City Goal 5.1 & 5.4)

- Ensure citizens receive quality service in a timely manner. (City Goal 5.2)

| **Objective A:** Maintain an adequate and experienced work force and adequate equipment to meet quality service delivery needs | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| % of responses under 30 minutes | 100% | 100% | 100% | 100% |
| % of personnel certified | 90% | 90% | 100% | 90% |

**Trend:** Measure of "% of responses under 30 minutes" has been strengthened from "under one hour."

- Maintain a highly reliable and efficient water distribution system by complying with all state and federal requirements. (City Goal 5.4)

| **Objective:** Integrate water distribution system computer model with our GIS and Supervisory Control And Data Acquisition (SCADA) systems | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Compliance with state & federal regulations | 100% | 100% | 100% | 100% |

- Maintain a highly competent staff through comprehensive continuing education, training and certification program upgrades. (City Goal 5.1)

| **Objective:** Perform an annual evaluation of staff's compliance with applicable EPA and TCEQ rules | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Total number of staff | 31 | 32 | 31 | 31 |
| % of staff holding required license(s) | 90% | 90% | 100% | 90% |
| % of staff holding multiple licenses | 81% | 75% | 90% | 90% |

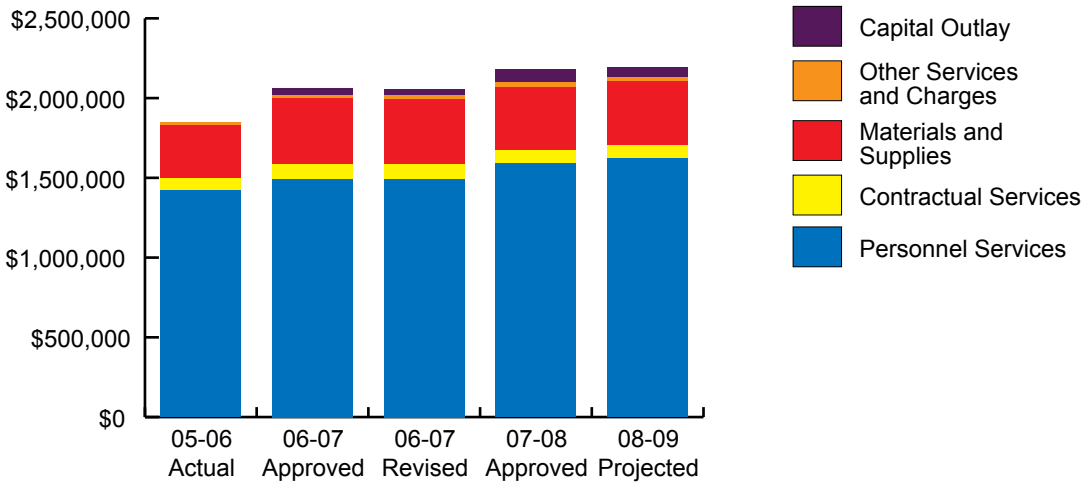
## Summary of Key Measurement Indicators

| Measurement Indicators | Actual 2005-06 | Estimated 2006-07 | Projected 2007-08 |
|---|---|---|---|
| **Demand** | | | |
| Number of Customers/ Connections | 29,208 | 30,960 | 30,617 |
| Number Miles of Water Lines | 458 | 481 | 487 |
| **Input** | | | |
| Number of Crews: (3, 2, 1 person crews) | 10 | 10 | 10 |
| Operating Expenditures | **$1,848,046** | **$2,058,901** | **$2,181,238** |
| Authorized FTEs | **31.00** | **31.00** | **31.00** |
| **Output** | | | |
| Work Orders – Water | 4,242 | 13,000 | 4,000 |
| Water Delivered | 7,218,411,000 | 7,377,475,000 | 6,315,095,000 |
| **Efficiency** | | | |
| Expenditures per Work Order - Water | $435.65 | $158.38 | $545.31 |
| Water Line Maint Unit cost per 1,000 gallons | $0.26 | $0.28 | $0.35 |
| Work order per mile – Water | 9.26 | 27.03 | 8.21 |
| Authorized Personnel as % of Utility Fund | **24.41%** | **24.22%** | **24.22%** |
| Expenditures as a % of Utility Fund | **6.35%** | **7.19%** | **6.66%** |
| **Effectiveness** | | | |
| % Emergency Response Within 30 Minutes | 100% | 100% | 100% |
| Annual work orders by crew | 424 | 1,300 | 400 |
| Average work order per crew per day | 1.70 | 5.22 | 1.61 |
| Customer Satisfaction Rating | 90% | 98% | 99% |
| Excellent | 57% | 75% | 40% |
| Good | 33% | 33% | 40% |

| | Positions | | | Full Time Equivalents | | |
|---|---|---|---|---|---|---|
| **Authorized Personnel** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** |
| Utility Operations Manager | 1 | 1 | 1 | 1 | 1 | 1 |
| Utility Crew Leader | 9 | 9 | 9 | 9 | 9 | 9 |
| Utility Worker III | 6 | 8 | 8 | 6 | 8 | 8 |
| Utility Worker I-II | 12 | 10 | 10 | 12 | 10 | 10 |
| Flushing Tech | 1 | 1 | 1 | 1 | 1 | 1 |
| Utility Supervisor | 2 | 2 | 2 | 2 | 2 | 2 |
| Total | 31 | 31 | 31 | 31 | 31 | 31 |

## Water Line Maintenance

*Expenditures by Category*



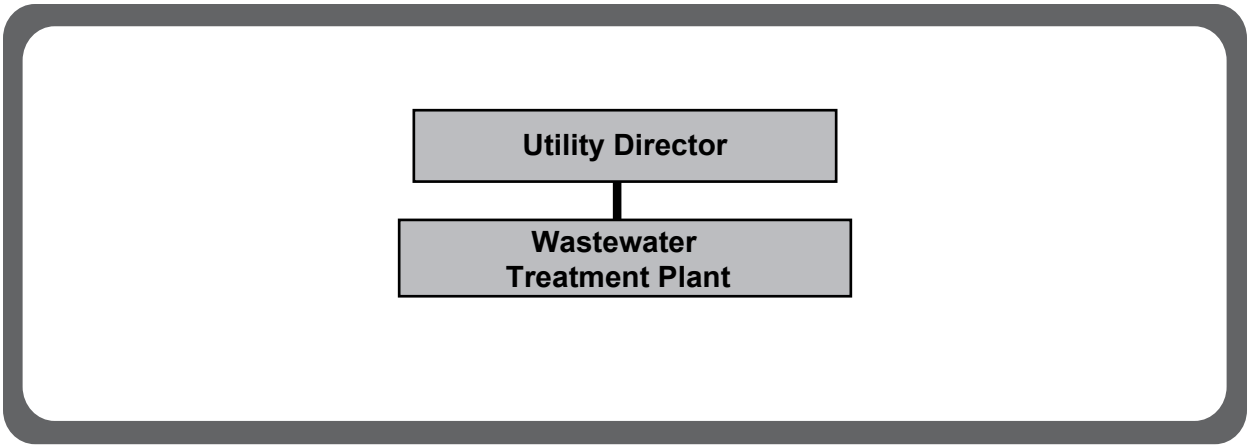

### Summary of Expenditures:

| | 2005-06 Actual | 2006-07 Approved Budget | 2006-07 Revised Budget | 2007-08 Approved Budget | 2008-09 Projected Budget |
|---|---|---|---|---|---|
| Personnel Services | $1,422,911 | $1,492,316 | $1,492,316 | **$1,590,846** | $1,619,644 |
| Contractual Services | 76,949 | 91,439 | 91,439 | **83,956** | 84,002 |
| Materials and Supplies | 327,303 | 415,432 | 410,507 | **392,770** | 400,270 |
| Other Services and Charges | 20,883 | 21,214 | 21,214 | **29,666** | 29,666 |
| Capital Outlay | 0 | 38,500 | 43,425 | **84,000** | 61,100 |
| Total Expenditures: | $1,848,046 | $2,058,901 | $2,058,901 | **$2,181,238** | $2,194,682 |
| Expenditures per Capita: | $20.88 | $22.85 | $22.85 | **$23.28** | $22.51 |

# *Wastewater Treatment Plant Department*

The primary activity of the Wastewater Treatment Plant Department is the treatment of residential, commercial and industrial wastewater to a level that meets or exceeds state and federal regulations. This is accomplished by utilizing sophisticated equipment, advanced treatment technologies and state certified wastewater treatment plant operators provided by the Lower Colorado River Authority (LCRA) / Brazos River Authority (BRA) Alliance.

*Mission: Provide the highest quality treated effluent for irrigation, utility, recreation, aquatic habitat and future drinking water uses.*




## Departmental Program Summary:

The Wastewater Treatment Plant is a single program described in detail below:

## Program:

**Wastewater Treatment Plant:** The Wastewater Treatment Plant's major function is to provide for treatment of domestic sewerage. The operation is regional and includes customers from Williamson and Travis counties. Round Rock purchases wastewater treatment from the Lower Colorado River Authority/Brazos River Authority Alliance, who owns, operates, and controls the Wastewater Treatment Plant.

It should be noted that this operation has been conveyed to the Lower Colorado River Authority.

## New Programs for FY 2007-08:

The Wastewater Treatment Plant is proposing no new programs for FY 2007-08.

## Summary of Key Measurement Indicators

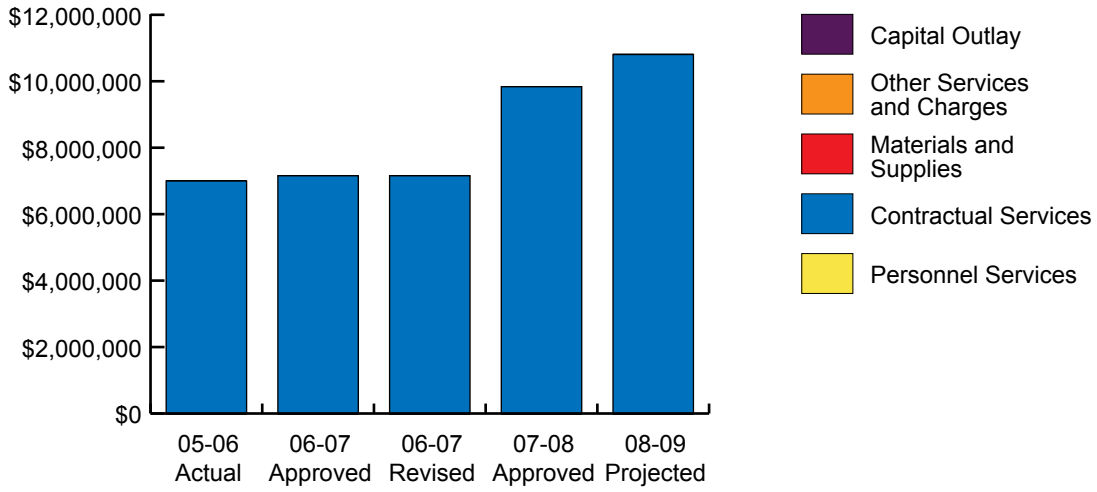
| Measurement Indicators | Actual 2005-06 | Estimated 2006-07 | Projected 2007-08 |
|---|---|---|---|
| **Demand** | | | |
| Total Amount of Wastewater Treated (In Millions of Gallons/Day) | 3,637,240,000 | 3,928,219,200 | 4,317,220,000 |
| Raw BOD (Biochemical Oxygen Demand) | 250 | 250 | 250 |
| Raw TSS (total suspended solids) | 250 | 250 | 250 |
| Raw Ammonia | 12 | 12 | 12 |
| **Input** | | | |
| Department Expenditures/Contractual Costs* | **$6,996,972** | **$7,155,654** | **$9,835,262** |
| Department FTEs | **0.00** | **0.00** | **0.00** |
| **Output** | | | |
| Effluent BOD | 2 | 2 | 2 |
| Effluent TSS | 2 | 2 | 2 |
| Effluent Ammonia | 1 | 1 | 1 |
| **Efficiency** | | | |
| Removal Efficiency | | | |
| BOD | 99% | 99% | 99% |
| TSS | 99% | 99% | 99% |
| Ammonia | 92% | 92% | 92% |
| Expenditures as a % of Utility Fund | **24.06%** | **24.99%** | **30.05%** |
| **Effectiveness** | | | |
| Number of Excursions (an unintentional or temporary incident wherein there is a discharge of wastewater with pollutant parameters in excess of a prescribed limit) | 0 | 0 | 0 |

*Note: City Purchases Wastewater Treatment from LCRA/BRA

| | Positions | | | Full Time Equivalents | | |
|---|---|---|---|---|---|---|
| **Authorized Personnel** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** |
| None | 0 | 0 | 0 | 0 | 0 | 0 |

## Wastewater Treatment Plant

*Expenditures by Category*



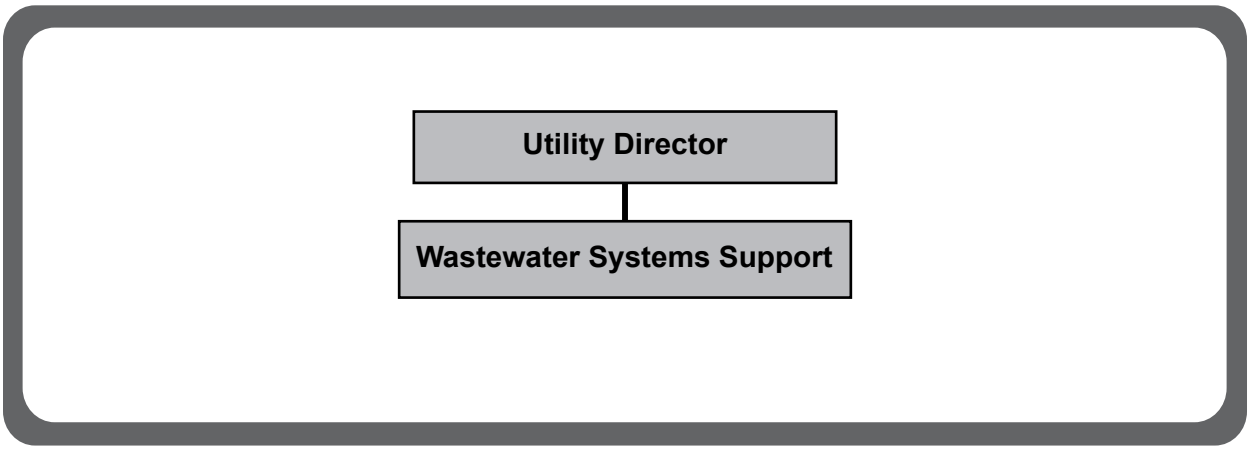

### Summary of Expenditures:

| | 2005-06 Actual | 2006-07 Approved Budget | 2006-07 Revised Budget | 2007-08 Approved Budget | 2008-09 Projected Budget |
|---|---|---|---|---|---|
| Personnel Services | $0 | $0 | $0 | **$0** | $0 |
| Contractual Services | 6,996,972 | 7,155,654 | 7,155,654 | **9,835,262** | 10,804,788 |
| Materials and Supplies | 0 | 0 | 0 | **0** | 0 |
| Other Services and Charges | 0 | 0 | 0 | **0** | 0 |
| Capital Outlay | 0 | 0 | 0 | **0** | 0 |
| Total Expenditures: | $6,996,972 | $7,155,654 | $7,155,654 | **$9,835,262** | $10,804,788 |
| Expenditures per Capita: | $79.06 | $79.42 | $79.42 | **$104.97** | $110.82 |

# *Wastewater Systems Support Department*

The Wastewater Systems Support Department is responsible for the operation, maintenance and repair of the city's Wastewater Collection System Lift Stations. Wastewater Systems Support is structured utilizing multiple water/wastewater maintenance crews. Reporting lines of authority and accountability are shown below.

*Mission: Provide all of our customers with safe, adequate, reliable, and high quality wastewater services.*




## Departmental Program Summary:

The Wastewater Systems Support Department consists of a single program, which is described below:

## Program:

**Wastewater Systems Support:** This department maintains the mechanical and electrical equipment on the City's 11 lift stations and is under the direction of the Utility Support Superintendent. The lift station maintenance program assures system reliability by performing routine inspections of the System's wastewater lift stations. These routine inspections include the maintenance and repair of pumps, motors, electrical control systems, and various control devices at each lift station. In order to maximize the system's reliability, Wastewater Systems Support maintains an emergency response team that is on call twenty-four hours a day, three hundred sixty-five days per year.

## FY 2006-07 Highlights:

The city's growth has increased demand on the wastewater collection system; therefore there is a need for continual improvements and evaluation.

- Completion of the I & I Flow Monitoring Study.
- Completion of the Westinghouse Wastewater Interceptor.
- Started the construction of the McNutt Wastewater Interceptor.

## FY 2007-08 Overview and Significant Changes:

The Wastewater Collection System's growth in the northeast sector of town has created a need for improvements and the State's Wastewater regulations require constant inspection and rehabilitation of the wastewater collection system.

- Completion of the McNutt Wastewater Interceptor.
- Completed the mandated Edwards Aquifer Inspection of wastewater lines and manholes in Basins LC-09Z, BC-20Z and LC-17Z.
- Completed the mandated Edwards Aquifer Rehabilitation of wastewater lines and manholes in Basins EW-01Z, OC-37Z, BC-22Z, CC-32Z and LC-17Z.

## New Programs for FY 2007-08:

No new programs.

## FY 2008-09 Overview and Beyond:

State regulations require continual inspection and rehabilitation of the wastewater system.

- Complete the mandated Edwards Aquifer Inspection and Rehabilitation of the wastewater lines and manholes in other basins.

## Departmental Goals:

- Develop and maintain an in-house wastewater-modeling program, including system inventory, mapping, and Supervisory Control and Data Acquisition (SCADA) management system to ensure efficient and adequate system expansions. (City Goal 5.5)
- Fully and efficiently utilize the regional wastewater system to enhance the reliability of our wastewater collection system. (City Goal 5.4)
- Ensure our wastewater system is reliable and in compliance with all applicable Environmental Protection Agency (EPA) and Texas Commission on Environmental Quality (TCEQ) regulations. (City Goal 5.4)

| **Objective:** Coordinate our GIS with our SCADA system to locate and track collection and pumping | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| % of system modeled | 100% | 100% | 100% | 100% |

| **Objective:** Maintain lift stations to ensure 100% operational capability and coordinate collection and pumping with the regional collection system | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Number of lift stations taken off-line | 3 | 0 | 0 | 0 |
| Miles of wastewater line connected directly to lift stations | 8.0 | 8.0 | 8.5 | 8.5 |

- Maintain a highly competent staff through a comprehensive continuing education, training and certification program. (City Goal 5.2)

| **Objective:** Maintain an adequate and experienced work force to meet quality service delivery needs. Perform annual evaluations of staff's compliance with applicable EPA and TCEQ rules | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Number of Staff | 4 | 4 | 4 | 4 |
| % of staff holding required license(s) | 100% | 100% | 100% | 100% |
| % of staff holding multiple licenses | 100% | 100% | 100% | 100% |

- Show continual improvement and implementation of our wastewater systems lift stations and wastewater SCADA system. (City Goal 5.5)

| **Objective:** Establish a wastewater SCADA system to monitor lift stations. Maintain equipment to ensure public safety | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Number of lift stations | 10 | 11 | 11 | 12 |
| % of lift stations on WW SCADA system | 100% | 100% | 100% | 100% |

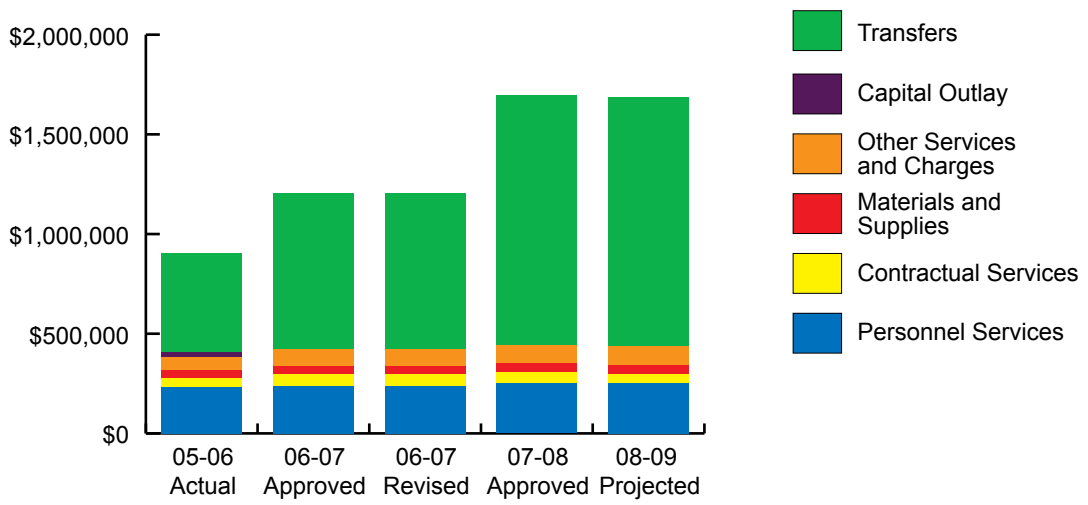
## Summary of Key Measurement Indicators

| Measurement Indicators | Actual 2005-06 | Estimated 2006-07 | Projected 2007-08 |
|---|---|---|---|
| **Demand** | | | |
| Wastewater Lift Stations | 11 | 11 | 12 |
| Pumps | 22 | 22 | 24 |
| Telemetry System (Sites) | 11 | 11 | 12 |
| **Input** | | | |
| Operating Expenditures | **$903,649** | **$1,205,406** | **$1,693,995** |
| Number Authorized FTEs | **4.00** | **4.00** | **4.00** |
| Wastewater Collected | 3,637,240,000 | 3,928,219,200 | 4,317,220,000 |
| **Output** | | | |
| Maintenance on Wastewater Lift Stations | 11 | 11 | 11 |
| Number of Emergency Call Outs (resident/city/etc.) | 19 | 25 | 25 |
| **Efficiency** | | | |
| Expenditures as a % of Utility Fund | **3.11%** | **4.21%** | **5.18%** |
| Authorized Personnel as a % of Utility Fund FTEs | **3.15%** | **3.13%** | **3.13%** |
| Yearly Cost per Site Maintained (exclusive of WW Construction Funds) | $40,283 | $38,310 | $38,310 |
| **Effectiveness** | | | |
| % of Emergency Calls Responded to within 1 Hour | 100% | 100% | 100% |
| WWSS Unit Cost per 1,000 gallons | $0.26 | $0.31 | $0.28 |

| | Positions | | | Full Time Equivalents | | |
|---|---|---|---|---|---|---|
| **Authorized Personnel** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** |
| Utility Support Supervisor | 0 | 0 | 0 | 0 | 0 | 0 |
| Utility Support Superintendent | 1 | 1 | 1 | 1 | 1 | 1 |
| W/WW System Mechanic | 2 | 2 | 2 | 2 | 2 | 2 |
| W/WW System Mechanic Supervisor | 1 | 1 | 1 | 1 | 1 | 1 |
| Total | 4 | 4 | 4 | 4 | 4 | 4 |

## Wastewater Systems Support

*Expenditures by Category*



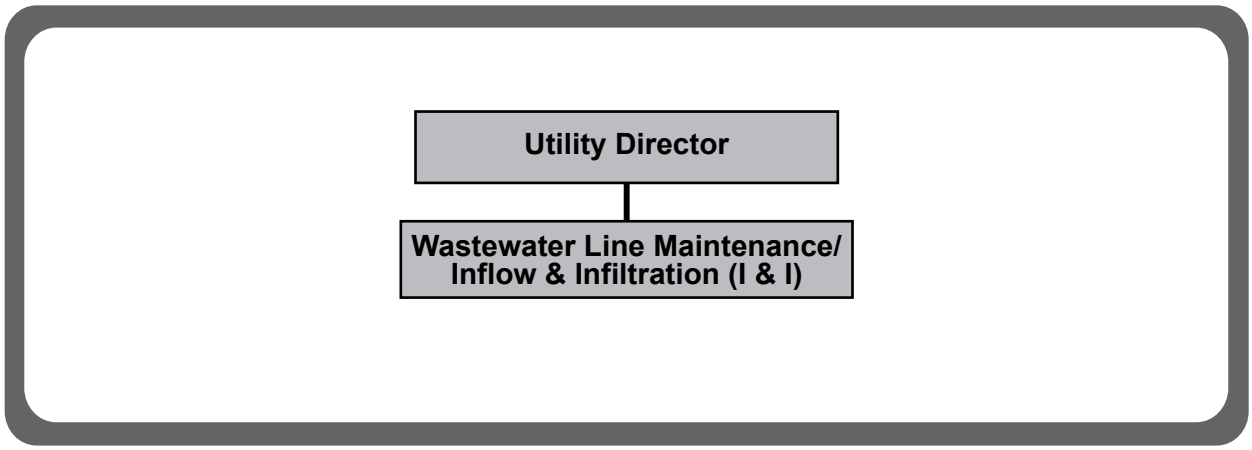

### Summary of Expenditures:

| | 2005-06 Actual | 2006-07 Approved Budget | 2006-07 Revised Budget | 2007-08 Approved Budget | 2008-09 Projected Budget |
|---|---|---|---|---|---|
| Personnel Services | $231,982 | $236,101 | $236,101 | **$250,691** | $253,155 |
| Contractual Services | 44,860 | 59,605 | 59,605 | **54,804** | 42,635 |
| Materials and Supplies | 37,380 | 39,800 | 39,800 | **47,500** | 48,850 |
| Other Services and Charges | 69,223 | 85,900 | 85,900 | **89,000** | 91,550 |
| Capital Outlay | 20,204 | 0 | 0 | **0** | 0 |
| Transfers | 500,000 | 784,000 | 784,000 | **1,252,000** | 1,252,000 |
| Total Expenditures: | $903,649 | $1,205,406 | $1,205,406 | **$1,693,995** | $1,688,190 |
| Expenditures per Capita: | $10.21 | $13.38 | $13.38 | **$18.08** | $17.31 |

# *Wastewater Line Maintenance Department*

The Wastewater Line Maintenance (WWLM) Department is responsible for the maintenance and repair of the City's Wastewater Collection System. Wastewater Line Maintenance is structured utilizing multiple three-man Maintenance Crews under the direction of the Wastewater Line Maintenance Supervisor reporting to the Utility Operations Manager - all of whom report to the Utility Director.

*Mission: Provide all of our customers with safe, adequate, reliable, and high quality wastewater services.*




## Departmental Program Summary:

The Wastewater Line Maintenance Department consists of one program described below:

## Program:

**Wastewater Line Maintenance:** Wastewater Line Maintenance and I & I are one department however are considered two separate cost centers (division) with the same goals. Wastewater Line Maintenance Crews are dispatched on a continuous basis to repair line breaks and remedy service problems. This program operates on a 24/7 basis with on-call personnel after hours, weekends, and holidays. With the current inspection, correction and documentation requirements of the Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Rules (Chapter 213), the Wastewater Line Maintenance division has a major responsibility for identifying and correcting inflow and infiltration (I&I) into the City's wastewater collection system during rainy periods. This responsibility requires testing and certification of all Wastewater facilities every seven years. Wastewater Line Maintenance (WWLM) also performs preventative maintenance and existing water utility locates in accordance to the Texas Line Locate Bill, "One Call".

## FY 2006-07 Highlights:

The Department has been working on improving service, and meeting mandated rules.

- Successfully completed the schedule line cleaning, manhole inspections and video inspection program mandated by TCEQ. These basins (LC09, BC20, & LC17) consist of 101,966 linear feet of wastewater lines and 332 manholes.
- Responded to sewer backups within 30 minutes. Maintained our lift station and line cleaning program to reduce overflow in the collection system.
- The City's WWLM Dept has successfully completed this year's in-house rehab program. The program reduces the rehab contract by $242,700. The savings can be used to pay for repairs needed in the Non-Edwards basins. These repairs will help reduce the City's line cleaning program list of collection lines needing repairs.

## FY 2007-08 Overview and Significant Changes:

The City continues to work on reducing the amount of I & I in the collection system. The department also continues to repair and or replace old existing lines by:

- Adding the New Vehicle Mounted Closed Circuit TV System to our inspection program. This equipment will help complete the yearly inspection and reduce the I & I in our collection lines.
- Adding another Administrative Tech will allow for more efficient work to be done with the Cartegraph work order system. We will be training our staff with Tough Books to enter their own work order data assisting with the data entry process. Cross training our employees in order to have well trained staff. The staff will be capable to fill in any vacant spot in order to continue our programs.
- Reducing the number of line segments on our line cleaning program. A Non-Edwards list has been developed to rehab wastewater lines upon availability of funds. As line segments are repaired or replaced, they are removed from the list.

## New Programs for FY 2007-08:

**Portable CCTV:** The addition of this CCTV unit, the City would meet mandated requirements set by the TCEQ Edwards Aquifer Rule. The City has wastewater lines that are located in areas with poor or limited access. This portable CCTV unit will be able to be mounted in the bed of a 4X4 pickup. This will allow access to the areas along backyards, creeks and drainage channels.

**Administrative Tech II (1 FTE):** This new position will process the work orders allowing for shorter processing time of work orders; getting the work orders to the Street Department for street cuts, or concrete work and returning the work orders to the Utility Department to complete the job with Sod & Loam. Currently this is done in two different locations, which results in lost work orders and delays. This position will allow for cross training to help prevent any delays in work orders, time cards or budget items in the event one administrative tech is out of the office for any length of time.

## FY 2008-09 Overview and Beyond:

The City will continue to upgrade our modeling system by:

- Installation & monitoring the wastewater meters in select location through out the city to help identify I&I in the system.
- Dedicating one person to work on the GPS/GIS 3 year mapping project. This employee will provide map corrections as well as participates with in house GPS team. They will also GPS all manholes and end of the line clean out points in the system in order to improve our mapping system.
- Inspection and cleaning the wastewater lines and manholes in the system.

## Departmental Goals:

- Protect the public health by developing and maintaining a comprehensive, integrated in-house wastewater collection system-modeling program, including system inventory, mapping, and management to ensure efficient and adequate system expansions. (City Goal 5.1)

- Ensure citizens receive quality service in a timely manner. (City Goal 5.2)

- Ensure our wastewater system is reliable and in compliance with all applicable state and federal regulations. Fully and efficiently utilize the regional wastewater system to enhance the reliability of our wastewater collection system. (City Goal 5.4)

| **Objective:** Acquire and maintain adequate equipment and supplies to meet quality service delivery needs | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Number of work orders | 2,871 | 3,548 | 3,902 | 4,293 |
| Average response time /average time to complete | 30<br>30 min/<br>12 hours | 30<br>30 mins/<br>12 hours | 30<br>30 mins/<br>12 hours | 30<br>30 mins/<br>12 hours |

**Trend:** Work orders ballooned in FY 2003-04 as more workers were hired and activities were tracked in greater detail. Work orders should remain about the same as departmental policies may reduce the scope of activities necessitating the completion of a work order.

- Maintain a highly competent and reliable staff through a comprehensive continuing education, training and certification program. (City Goal 5.1)

| **Objective:** Maintain an adequate and experienced work force to meet quality service delivery needs. Perform an annual evaluation of staff's compliance with applicable EPA and TCEQ rules | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Total number of staff | 26 | 26 | 26 | 27 |
| % of staff holding required license(s) | 88% | 92% | 100% | 100% |
| % of staff holding multiple licenses | 64% | 69% | 85% | 90% |

- Continual improvement and implementation of our wastewater systems inflow and infiltration (I&I) reduction program to ensure the protection of our natural resources. (City Goal 5.4)

| **Objective:** Establish an I &I Office to coordinate and maintain our I &I reduction program documents in order to comply with applicable EPA regulations and TCEQ's Edwards Aquifer Rules. Implement RJN Group, Inc.'s recommendations for I&I reduction through line and manhole repair, replacement, and rehabilitation | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Miles of WWL videotaped as % of system | 5% | 7% | 9% | 9% |
| Miles of WWL added to System as % of increase to system | 12% | 10% | 10% | 10% |
| Miles of WWL repaired or replaced as % of miles to system | 4% | 4% | 4% | 4% |
| Number of manholes rehab as % of system | 4% | 5% | 4% | 5% |

**Trend:** Rehabilitation of part of the system (Edwards Aquifer Recharge Zone) is now on a seven-year program per state mandate. Percentages have dropped significantly in most measures as a result of compliance mandates and revision of estimates. Basins are different in size and linear feet.

## Summary of Key Measurement Indicators

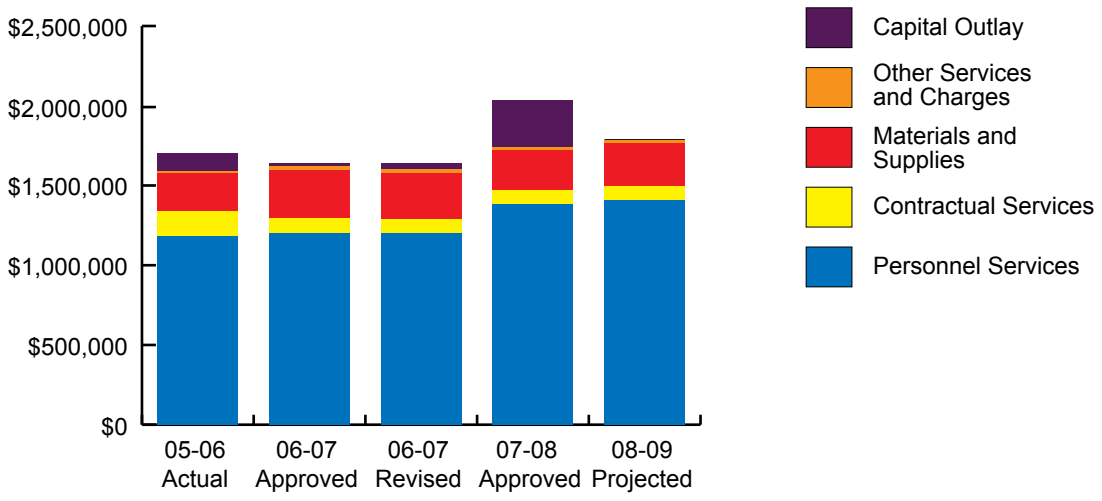
| Measurement Indicators | Actual 2005-06 | Estimated 2006-07 | Projected 2007-08 |
|---|---|---|---|
| **Demand** | | | |
| Miles of Sewer Mains | 365 | 376 | 392 |
| **Input** | | | |
| Number Authorized FTEs | **26.00** | **26.00** | **27.00** |
| Operating Expenditures | **$1,703,549** | **$1,639,055** | **$2,036,553** |
| Total Amount of Wastewater Treated | 3,637,240,000 | 3,928,219,200 | 4,317,220,000 |
| **Output** | | | |
| Feet of Line Investigated –TV | 181,316 | 152,515 | 161,291 |
| Mainline | 120,908 | 119,502 | 141,291 |
| Laterals | 60,408 | 33,013 | 20,000 |
| **Efficiency** | | | |
| Per capital sewer calls | 0.00843 | 0.00493 | 0.00427 |
| Total wastewater service calls | 746 | 444 | 400 |
| Authorized Personnel as % of Utility Fund | **20.47%** | **20.31%** | **21.09%** |
| Expenditures as a % of Utility Fund | **5.86%** | **5.72%** | **6.22%** |
| **Effectiveness** | | | |
| Located Number Gallons per Minute I&I ** | 1,250 | 750 | 750 |
| Repaired Number of Gallons per Minute I&I | 1,100 | 685 | 850 |
| Manholes Repaired | 75 | 250 | 75 |
| Line Stoppages Corrected | 471 | 250 | 250 |
| % Customer Satisfaction Rating (Good to Excellent) | 95% | 95% | 95% |
| **Unit Cost** | | | |
| Wastewater Line Maint unit cost (per 1,000 gallons) | 38.36 | 36.63 | 32.47 |

** Estimated from flow data provided by Brazos River Authority.

| Authorized Personnel | Positions 2005-06 Actual | Positions 2006-07 Revised | Positions 2007-08 Approved | Full Time Equivalents 2005-06 Actual | Full Time Equivalents 2006-07 Revised | Full Time Equivalents 2007-08 Approved |
|---|---|---|---|---|---|---|
| Utility Supervisor | 1 | 1 | 1 | 1 | 1 | 1 |
| Administrative Technician I-III | 1 | 1 | 2 | 1 | 1 | 2 |
| Utility Crew Leader I&I | 4 | 4 | 4 | 4 | 4 | 4 |
| Utility Crew Leader | 4 | 4 | 4 | 4 | 4 | 4 |
| Utility Worker I & I Operations Technician | 1 | 1 | 1 | 1 | 1 | 1 |
| Utility Worker II I&I | 3 | 3 | 3 | 3 | 3 | 3 |
| Utility Worker II | 5 | 5 | 5 | 5 | 5 | 5 |
| Utility Worker I I&I | 3 | 3 | 3 | 3 | 3 | 3 |
| Utility Worker I | 2 | 2 | 2 | 2 | 2 | 2 |
| First Response Crew Leader | 1 | 1 | 1 | 1 | 1 | 1 |
| I&I Coordinator | 1 | 1 | 1 | 1 | 1 | 1 |
| Total | 26 | 26 | 27 | 26 | 26 | 27 |

## Wastewater Line Maintenance

*Expenditures by Category*



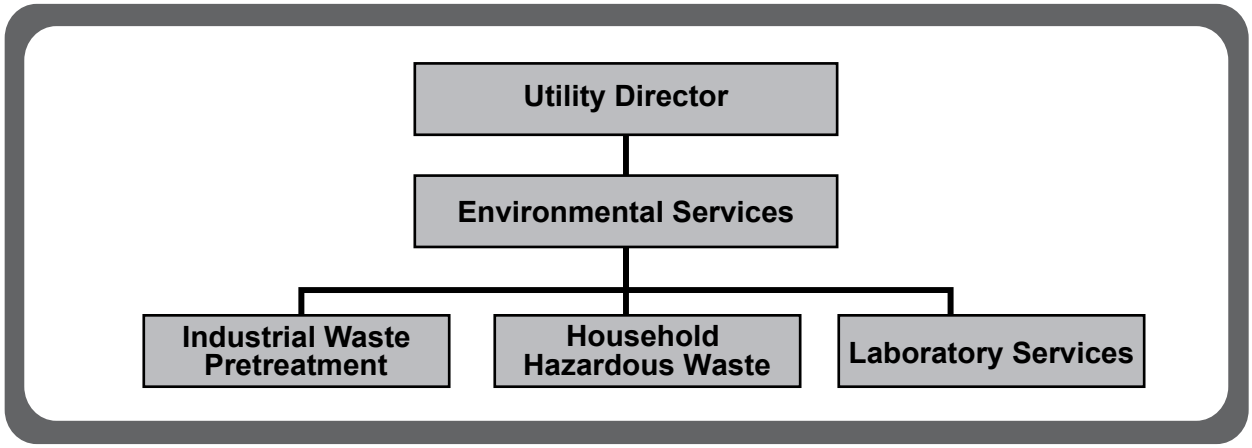

## Summary of Expenditures:

| | 2005-06 Actual | 2006-07 Approved Budget | 2006-07 Revised Budget | 2007-08 Approved Budget | 2008-09 Projected Budget |
|---|---|---|---|---|---|
| Personnel Services | $1,184,332 | $1,200,503 | $1,200,503 | **$1,381,942** | $1,406,348 |
| Contractual Services | 156,273 | 91,482 | 85,582 | **87,361** | 87,361 |
| Materials and Supplies | 233,542 | 304,070 | 290,978 | **250,867** | 270,867 |
| Other Services and Charges | 17,944 | 26,000 | 25,600 | **19,438** | 19,438 |
| Capital Outlay | 111,458 | 17,000 | 36,392 | **296,945** | 6,800 |
| Total Expenditures: | $1,703,549 | $1,639,055 | $1,639,055 | **$2,036,553** | $1,790,814 |
| Expenditures per Capita: | $19.25 | $18.19 | $18.19 | **$21.73** | $18.37 |

# *Environmental Services Department*

Environmental Services consists of several primary activities: Industrial Waste Pretreatment, Household Hazardous Waste Services, and Laboratory Services. These activities are accomplished through implementing and encouraging pollution prevention activities, enforcing environmental regulations, and quantifying pollutant concentrations.

*Mission: To provide resource preservation, conservation, and protection through the implementation and enforcement of environmental regulations and stewardship.*




## Departmental Program Summary:

The Environmental Services Department consists of three programs which are described below:

## Programs:

**Industrial Waste Pretreatment**: is mandated by the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ). This component is designed to protect the wastewater collection and treatment systems, public health, environment, and public waterways from the adverse impact of pollutant discharges. The pretreatment program includes permitting, inspecting, sampling, and testing of local businesses and industries to ensure compliance with applicable regulations.

**Household Hazardous Waste Services (HHW):** provides the safe and correct disposal of hazardous home chemicals and paint. This program helps to divert hazardous materials from the landfills, drinking water supplies and reduces the potential of illegal dumping. The city has conducted HHW services since 1996 and became a TCEQ approved permanent collection facility in December 2004.

**Laboratory Services:** provides testing services to a variety of customers. These include the city Water Treatment and Building Construction Inspections Departments, citizen inquiries, and municipal accounts. The laboratory has been certified by the Texas Department of Health since 1996 and maintains the highest standard of quality control. Laboratory Services is responsible for generating data required to recover waste treatment costs passed on by the Brazos River Authority (BRA).

## FY 2006-07 Highlights:

In FY 2006-07 budget year, the Environmental Services Department continued to focus on activities dedicated to enhancing the laboratory services, industrial waste pretreatment and household hazardous waste programs. These activities included the following:

- The laboratory became certified to analyze E.coli (enumeration) for EPA reporting purposes. The certified water lab managed over 125 water accounts on a monthly basis and analyzed over 8,400 bacteriological samples.
- The Industrial Pretreatment Program was audited by the TCEQ in May 2007 with few deficiencies found.
- An inter-local agreement template was created to provide residential Household Hazardous Waste (HHW) services to communities outside the City of Round Rock.

## FY 2007-08
## Overview and Significant Changes:

In FY 2007-08, the Environmental Services Department continues to concentrate on pollution prevention activities. The department is focusing on the following significant activities:

- Applying for NELAC (National Environmental Laboratory Accreditation Conference) accreditation. All laboratories producing reportable data must achieve accreditation by 2009.
- Initiating streamlining procedures for the Pretreatment Program in accordance with EPA and TCEQ requirements.
- Expanding pollution prevention activities by providing HHW services to neighboring communities such as Brushy Creek MUD. These services are offered at a cost to each community.

## New Programs for FY 2006-07:

No new programs are scheduled for this year, at this time.

## FY 2008-09 Overview and Beyond:

As we transition from a small to a medium sized city, the Environmental Services Department will concentrate on activities geared to improving pollution prevention and expanding laboratory testing services as well as planning to meet the future needs of the community. The Environmental Services Department will focus on the following tasks in FY 2008-09:

- The laboratory program will continue to maintain NELAC accreditation so that the data produced is reportable and defensible.
- The department will implement the necessary quality assurance and quality control procedures required to maintain the TCEQ approved Industrial Pretreatment Program.
- In order to ensure continued proper disposal of household hazardous chemicals, the department will develop and offer HHW disposal options to Williamson County and private citizens.

## Departmental Goals:

- Implement and enforce the rules and regulations governing non-domestic wastewater discharges into the sanitary sewer. (City Goal 5.4)
- Continue to develop and empower employees. (City Goal 5.2 and 6.0)
- Provide laboratory testing services to internal and external customers. (City Goal 5.4)

**Objective:** Perform water and wastewater tests and increase contract testing services

| **Objective:** Improve internal quality control | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Number of water tests in lab and in field (bacteriological, fluoride, chlorine, hardness) | 10,670 | 12,564 | 13,000 | 14,000 |
| Number of wastewater tests (total suspended solids, total dissolved solids, pH, volatile organics, etc.) | 994 | 859 | 900 | 950 |
| Number of Water Systems and Contractors Utilizing Water Laboratory Services/Number of contracts/customers | 105 | 118 | 125 | 130 |
| Percent error of results (<10% acceptable range) | 5% | N/A | N/A | N/A |
| Spike recovery | 92% | N/A | N/A | N/A |

**Trend:** The number of water tests is increasing because the laboratory has increased the number of customer contracts (see Objective B). In early FY 2004-05, the laboratory program gained a multi jurisdictional water and wastewater operations company as a client.

**Trend:** Eco Water Systems transferred their account to the city lab in March of 2005. This brought an additional 40 water systems into the program. The Environmental Laboratory provides bacteriological testing services to almost every water system in Williamson County as well as systems in Burnet, Bell, Travis, Hays and Milam counties.

**Trend:** Spike recovery is the amount of material retrieved from a sample that has been injected with a known concentration of pollutant. The target range for spike recovery is 85 to 100%, with 100% recovery being the best achievable. This section will no longer be tracked beginning in FY 2005-06.

N/A - not applicable

## Departmental Goals (cont.):

- Provide resource management including solid waste and waterways. (City Goal 5.6)

| **Objective:** Increase the amount of material being disposed of properly and participation rate and regionalize the HHW program | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Tons of material disposed (Material handled by a Hazardous Waste Contractor such as paint and household chemicals) | 8.7 | 17 | 19 | 21 |
| Tons of material Re-Used/Re-issued (Material put into the Re-Use Program such as usable paint, pesticides, automotive fluids, etc.) | 8.4 | 25.5 | 27 | 30 |
| $ Saved by Re-Use vs. Disposal (average per year) | $20,496 | $29,562 | $32,000 | $34,000 |
| Number of participants bringing household hazardous waste | 637 | 872 | 1,000 | 1,200 |
| Number of participating entities | 0 | 0 | 1 | 1 |
| Number of participants | 0 | 0 | 200 | 400 |

**Trend:** The city has conducted and managed HHW services since 1996. The current facility was designated as an official permanent HHW facility by the TCEQ in December 2004.

**Trend:** In FY 2005-06, improved advertising and program awareness resulted in increased participation.

- Conduct pollution prevention activities. (City Goal 3.5)

| **Objective:** Conduct the industrial waste pretreatment program, surcharge and grease management program for commercial dischargers | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Number of Industries on Industrial Waste Program | 14 | 15 | 15 | 15 |
| Number of commercial businesses on Surcharge Program | 130 | 130 | 130 | 130 |
| Number of citations issued | 22 | 20 | 20 | 20 |
| Number of commercial businesses on sampling/inspection program | 130 | 130 | 130 | 130 |
| Number of field violations issued | 13 | 5 | 10 | 10 |

**Trend:** The number of surcharge customers is expected to increase with the development of the Premium Outlet Mall area. The field violation system was implemented in FY 2004-05.

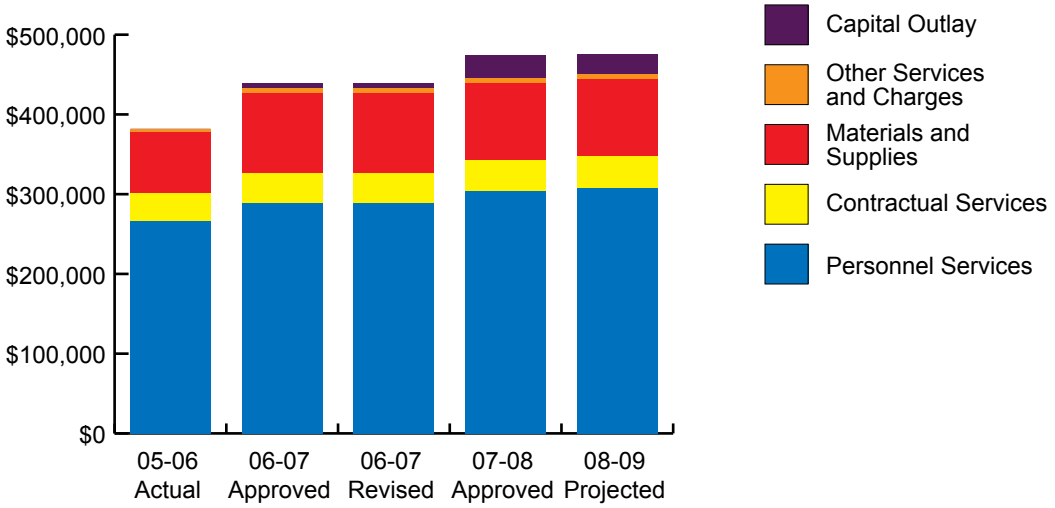
## Summary of Key Measurement Indicators

| Measurement Indicators | Actual 2005-06 | Estimated 2006-07 | Projected 2007-08 |
|---|---|---|---|
| **Demand** | | | |
| **Industrial Waste** | | | |
| Number of Businesses/Industries Monitored | 142 | 142 | 142 |
| **Laboratory Services** | | | |
| Number of Water Lab Systems and Contract Account Managed | 118 | 125 | 130 |
| **Household Hazardous Waste Services** | | | |
| Yearly HHW Customers | 872 | 1000 | 1,200 |
| **Input** | | | |
| Number Authorized FTEs | **5.00** | **5.00** | **5.00** |
| Operating Expenditures | **$382,114** | **$439,344** | **$473,990** |
| **Output** | | | |
| **Industrial Waste** | | | |
| Number of Inspections (Industrial) | 293 | 300 | 310 |
| **Laboratory Services** | | | |
| Bacteriological Samples (Lab) | 8,362 | 8,400 | 8,500 |
| Industrial/Commercial Samples (Lab) | 859 | 900 | 925 |
| Other Samples (Lab) | 4,202 | 4,400 | 4,500 |
| **Household Hazardous Waste Services** | | | |
| Total Tons of Material Received | 42.40 | 46.00 | 51.00 |
| Tons Recycled | 25.50 | 27.00 | 30.00 |
| Tons Disposed | 17.00 | 19.00 | 21.00 |
| **Efficiency** | | | |
| **Industrial Waste** | | | |
| Average cost per Sampling Event | $31.50 | $31.50 | $31.50 |
| **Laboratory Services** | | | |
| Average cost per Water Sample | $3.81 | $3.90 | $3.95 |
| Average cost per Wastewater Sample | $8.08 | $8.50 | $9.00 |
| **Household Hazardous Waste Services** | | | |
| Average disposal cost per participant | $14.60 | $15.00 | $15.00 |
| **Effectiveness** | | | |
| Expenditures as a % of Utility Fund | **1.31%** | **1.53%** | **1.45%** |
| Authorized Personnel as a % of Utility Fund FTEs | **3.94%** | **3.91%** | **3.91%** |
| % Error of Results | <5.0% | <5.0% | <5.0% |
| % of Significant Users in Compliance | 87.00% | 87.00% | 87.00% |
| Tons of HHW Material Processed | 42.40 | 46.00 | 51.00 |
| Revenue Generated | $273,530 | $275,000 | $280,000 |

| | Positions | | | Full Time Equivalents | | |
|---|---|---|---|---|---|---|
| **Authorized Personnel** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** |
| Environmental Lab Analyst | 1 | 1 | 1 | 1 | 1 | 1 |
| Pretreatment Compliance Specialist | 1 | 1 | 1 | 1 | 1 | 1 |
| Environmental Services Supervisor | 1 | 1 | 1 | 1 | 1 | 1 |
| Field Laboratory Technician | 1 | 1 | 1 | 1 | 1 | 1 |
| Administrative Technician II | 1 | 1 | 1 | 1 | 1 | 1 |
| Total | 5 | 5 | 5 | 5 | 5 | 5 |

## Environmental Services

*Expenditures by Category*




### Summary of Expenditures:

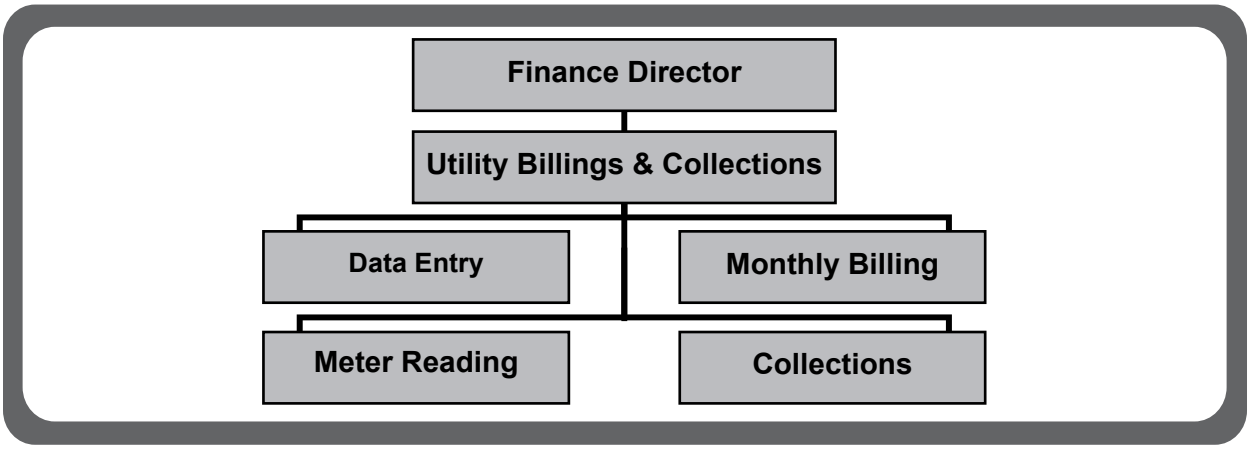
| | 2005-06 Actual | 2006-07 Approved Budget | 2006-07 Revised Budget | 2007-08 Approved Budget | 2008-09 Projected Budget |
|---|---|---|---|---|---|
| Personnel Services | $265,917 | $288,664 | $288,665 | **$303,521** | $308,230 |
| Contractual Services | 35,260 | 37,530 | 37,530 | **38,933** | 39,033 |
| Materials and Supplies | 76,086 | 99,850 | 99,850 | **96,336** | 96,836 |
| Other Services and Charges | 4,851 | 6,700 | 6,700 | **6,700** | 6,700 |
| Capital Outlay | 0 | 6,600 | 6,600 | **28,500** | 24,100 |
| Total Expenditures: | $382,114 | $439,344 | $439,345 | **$473,990** | $474,899 |
| Expenditures per Capita: | $4.32 | $4.88 | $4.88 | **$5.06** | $4.87 |


CITY OF ROUND ROCK, TEXAS

# *Utility Billings & Collections Department*

The Utility Billing Office handles the accounting, billing, and collection of all customer water, sewer, and garbage billings; connects and disconnects service; and provides assistance to customers.

*Mission: To account for the accurate and precise recording of information gathered from the reading, billing and collecting of money for every meter within the City of Round Rock, and provide professional, courteous and superior customer service for all citizens of Round Rock.*




## Departmental Program Summary:

The Round Rock Utility Billings and Collections Department consists of a single program divided into the following components:

## Program:

**Data Entry:** The office staff track all new meters in order to provide water service to new connections. Utility Systems Support Department and Building Inspections Department provide the information used to create accounts in the City's main database. The office reviews existing accounts monthly for correct occupant information for billing. We depend upon our customers to inform us of any changes of occupancy.

**Meter Reading:** Utility Systems Support staff read meters. The Utility Billing staff works closely with Utility Systems Support staff to maintain the reading schedule and meet deadlines.

**Monthly Billing:** The staff in this office calculates and invoices all monthly billings.

**Collections:** The office staff collect current and past due monies owed to the City of Round Rock. The collection process occurs throughout the month to ensure that accounts are collected in a timely manner.

## FY 2006-07 Highlights:

- The utility billing office was able to offer online payments and payments by phone as new payment options to our customers this past year. These types of payment options were ones that were requested by our customers on a frequent basis so it was very exciting to be able to offer these programs. Thus far both programs have had moderate participation. These two new pay methods have been successfully integrated with utility billings' other payment options.
- By working through our bank and the finance department we are now able to convert a substantial amount of payments received by paper checks into electronic transactions. These checks were recurring payments from customers who use their own banking relationships to transact their monthly payments.
- The change to electronic processing has increased the efficiency as well as the accuracy of entering these payments. During the last six months we have estimated the volume of manually keying in these payments has decreased by 65%.
- Our Friendly Rock program was updated and highly promoted during the last year. The physical changes that occurred were minimal however it did increase our participation by 27%. Friendly Rock is a donation program that assists those in need with their water

## FY 2006-07 Highlights: (cont.)

bill. Our customers are reminded of this program on their monthly bill and participation is optional, customers can participate by making a one time donation or signing up for a recurring fixed amount.

## FY 2007-08 Overview and Significant Changes:

- In the coming year we hope to resolve our on going traffic issues that occur each month. Our first due date coincides with the first week of the month. This normally creates a higher volume of drive through and walk in traffic. We have plans to place a drive through payment drop box within view of our current drive through window. This will allow our customers the ability to simply drop off their payment and not have to wait in the drive through lane. The drive through lane can then be used exclusively for customers who need a validated receipt for their payment.

- The meter reading division is working on a major project that will have a significant impact on the utility billing office. The meter reading division reads meters in sections of the city. These sections are called zones which breakdown into routes within a geographical area of the city. These routes presently contain a large amount of meters that require reading during a specific week within the month. The goal is to condense each reading route to a systematic amount of meters within each route to make the daily reading task more manageable. This change in routes will mandate a change for all account numbers within the utility billing system database. This will require a thorough review of all the utility billing processes to determine what areas and how this change will affect the entire database. The meter reading division has spent a considerable amount of time on this project and both departments will benefit upon completion and implementation of this change.

- The utility billing office will be adding a new part time position to our department. This position will help ensure that the high level of customer satisfaction is maintained for the City.

## New Programs for FY 2006-07:

**Customer Service Representative (.5 FTE):** The utility billing office will be adding a new part time position to our department. This will help us to continue to provide our customer's with a high level of service.

## FY 2008-09 Overview and Beyond:

- Implement a paperless field work order process. This would allow our field technicians to operate in the field with a handheld computer that will give the office live information on the status of work order completion.

- Upgrade our phone system to an automated phone options. Our phone volumes have increased over the last 10-15 years since our current phone system was implemented. We have a need to provide our customers the level of phone service that they expect in a business like ours. Technology has the ability to provide customers with options for service that range from conducting the entire transaction by phone or opting out of the automated phone system and speaking to a live person.

- Continue to research the technology options that our customers ask for from time to time. The ability to view payment history and current billing is a feature that is important to our customers. We have improved our current online application process but would like to enhance this process by creating the entire forms process to be transmitted electronically to our office from the customer. We also have a need to be able to transact all customer requests for miscellaneous service electronically.

## Departmental Goals:

- Continue to review and research payment options surveyed by customer response. (City Goal 5.5)
- Continue to maintain a priority for collection of past due delinquent accounts. (City Goal 5.5)
- Stay abreast of technology updates for department-related activities. (City Goal 5.5)
- Continue to pursue a cohesive working relationship with support staff and the utility office. (City Goal 6.5)
- Provide accurate, professional and courteous service to all our citizens. (City Goal 5.2)

| **Objective:** Implement an annual survey to measure customer satisfaction and obtain an 85% or higher satisfaction rate | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| Surveys mailed/returned | 5,000/102 | 6,500/95 | 8,000/175 | 8500/200 |
| % of Customers satisfied | 91% | 89% | 95% | 95% |

**Trend:** Customer satisfaction appears to be difficult to measure since a considerable volume of survey cards are mailed but less than 1% are returned. We will continue to explore alternative methods to gather feedback for the future years.

| **Objective:** To provide ongoing training to our Customer Service Representatives in order to maintain satisfactory levels of customer interaction | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| No. hours CSR training | 16 | 96 | 100 | 100 |

**Trend:** It is vital that our customer service representatives understand the level of customer service needed to interact with our customers in unique situations. This percentage of our customer base is the most demanding on our customer service skills. Training is the key to maintaining a satisfactory level of service.

- Streamline daily check processing collections through ACH bank method. (City Goal 5.5)

| **Objective:** Complete a study by 12/31/06 that determines the feasibility of processing checks through an automated clearinghouse system | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| No. of checks processed | 14,428/mo | 13,952/mo | 14,000/mo | 14,000/mo |

**Trend:** Check collection volume is a considerable large portion of daily collections that needs an efficient handling process. Need to continue to pursue a process that will assist with the huge volume of daily checks.

- Streamline daily online recurring paper check collections through electronic bank method. (City Goal 5.5)

| **Objective:** Complete a study by12/31/06 that determines the feasibility of processing checks electronically | **Actual 04-05** | **Actual 05-06** | **Forecast 06-07** | **Forecast 07-08** |
|---|---|---|---|---|
| No. of online recurring checks processed | 4,016/mo | 1,417/mo | 1,200/mo | 1,000/mo |

**Trend:** We have a large volume of online checks that are recurring payments from customers who use their own banking relationships to pay their monthly utility bill. With the assistance of the finance department and the bank a significant portion of these checks have been converted to be received electronically. The completion of this portion of our existing goal with our overall check processing has helped our work load tremendously. Our volume of paper online recurring payments has decreased by 65% in the last six months.

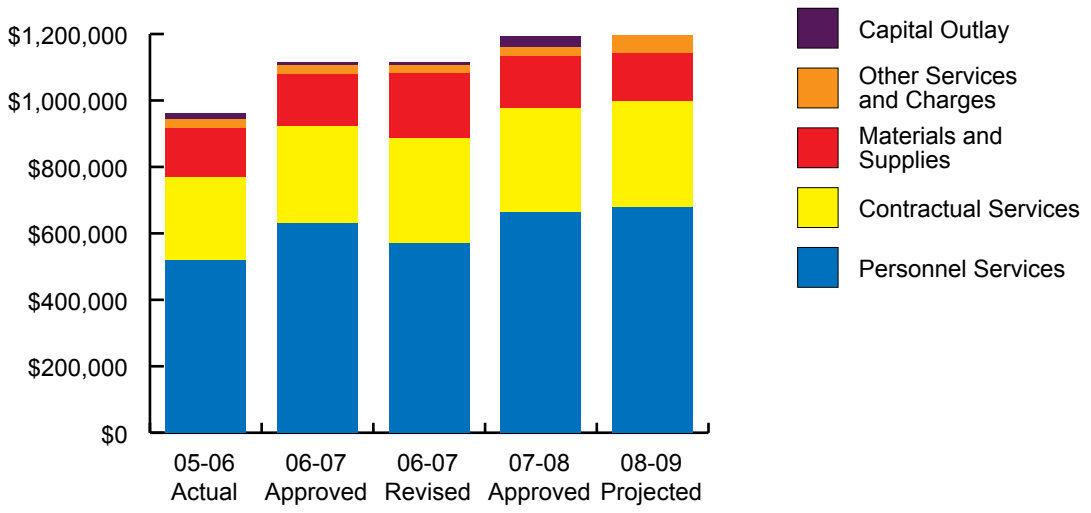
## Summary of Key Measurement Indicators

| Measurement Indicators | Actual 2005-06 | Estimated 2006-07 | Projected 2007-08 |
|---|---|---|---|
| **Demand** | | | |
| Customer Base | 28,199 | 29,000 | 30,000 |
| **Input** | | | |
| Number Authorized FTEs | **14.50** | **14.50** | **15.00** |
| Operating Expenditures | **$960,526** | **$1,114,252** | **$1,191,976** |
| **Output** | | | |
| Number of Work Orders Processed | 14,894 | 16,000 | 16,500 |
| Number of Payments Collected | 273,558 | 285,000 | 290,000 |
| Total Dollars Collected | $28,921,693 | $32,000,000 | $34,000,000 |
| **Efficiency** | | | |
| Authorized Personnel as % of Utility Fund | **11.42%** | **11.33%** | **11.72%** |
| Expenditures as a % of Utility Fund | **3.30%** | **3.89%** | **3.64%** |
| **Effectiveness** | | | |
| Payment Porecssing Data Entry Error Rate | 0.01% | 0.01% | 0.01% |

| | Positions | | | Full Time Equivalents | | |
|---|---|---|---|---|---|---|
| **Authorized Personnel** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** | **2005-06 Actual** | **2006-07 Revised** | **2007-08 Approved** |
| Utility Office Manager | 1 | 1 | 1 | 1 | 1 | 1 |
| Customer Service Supervisor | 1 | 1 | 1 | 1 | 1 | 1 |
| Sr. Customer Service Representative | 1 | 1 | 1 | 1 | 1 | 1 |
| Customer Service Representative | 5 | 5 | 5 | 5 | 5 | 5 |
| Receptionist | 1 | 1 | 1 | 1 | 1 | 1 |
| Customer Service Representative - P/T | 1 | 1 | 2 | 0.5 | 0.5 | 1 |
| Field Services Coordinator | 1 | 1 | 1 | 1 | 1 | 1 |
| Utility Accountant I | 1 | 1 | 1 | 1 | 1 | 1 |
| Water Service Representative | 2 | 2 | 2 | 2 | 2 | 2 |
| Sr. Water Service Representative | 1 | 1 | 1 | 1 | 1 | 1 |
| Total | 15 | 15 | 16 | 14.5 | 14.5 | 15 |

## Utility Billings & Collections

*Expenditures by Category*




### Summary of Expenditures:

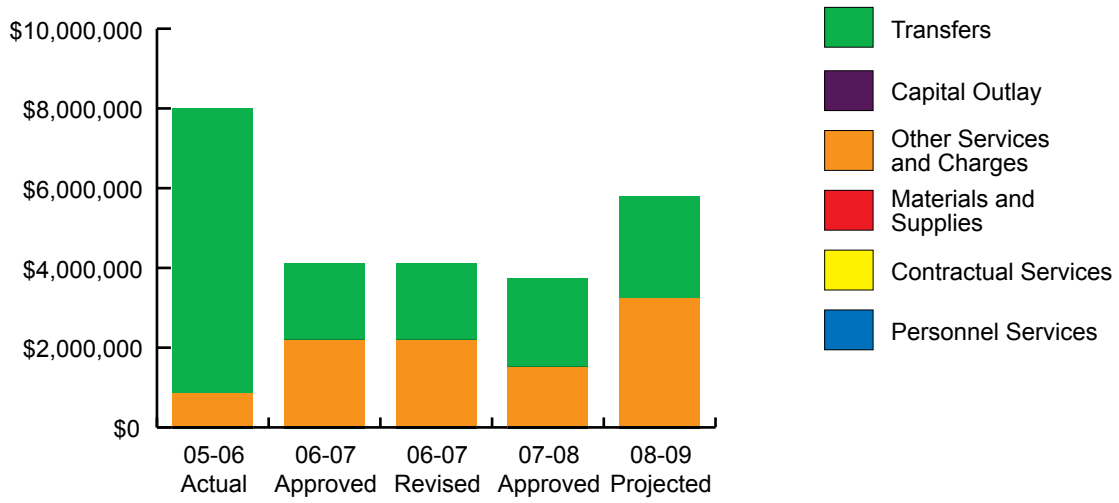
| | 2005-06 Actual | 2006-07 Approved Budget | 2006-07 Revised Budget | 2007-08 Approved Budget | 2008-09 Projected Budget |
|---|---|---|---|---|---|
| Personnel Services | $519,401 | $631,605 | $571,604 | **$664,779** | $678,066 |
| Contractual Services | 248,425 | 290,120 | 315,120 | **310,770** | 319,446 |
| Materials and Supplies | 150,414 | 158,327 | 193,327 | **158,527** | 144,993 |
| Other Services and Charges | 26,052 | 25,700 | 25,700 | **26,700** | 52,288 |
| Capital Outlay | 16,234 | 8,500 | 8,500 | **31,200** | 0 |
| Total Expenditures: | $960,526 | $1,114,252 | $1,114,251 | **$1,191,976** | $1,194,793 |
| Expenditures per Capita: | $10.85 | $12.37 | $12.37 | **$12.72** | $12.25 |

# Utility Debt Service & Transfers - Program Description

To provide for the scheduled retirement of the City's bonded and other long-term debt. See also the Debt Schedules Section of this budget.

## Utility Debt Service & Transfers

*Expenditures by Category*




### Summary of Expenditures:

| | 2005-06 Actual | 2006-07 Approved Budget | 2006-07 Revised Budget | 2007-08 Approved Budget | 2008-09 Projected Budget |
|---|---|---|---|---|---|
| Personnel Services | $0 | $0 | $0 | **$0** | $0 |
| Contractual Services | 0 | 0 | 0 | **0** | 0 |
| Materials and Supplies | 0 | 0 | 0 | **0** | 0 |
| Other Services and Charges | 858,345 | 2,200,000 | 2,200,000 | **1,521,000** | 3,232,100 |
| Capital Outlay | 0 | 0 | 0 | **0** | 0 |
| Transfers | 7,149,163 | 1,926,000 | 1,926,000 | **2,216,000** | 2,566,000 |
| Total Expenditures: | $8,007,508 | $4,126,000 | $4,126,000 | **$3,737,000** | $5,798,100 |
| Expenditures per Capita: | $90.48 | $45.79 | $45.79 | **$39.88** | $59.47 |